

# Summary

The summary file contains summary information for all the raw files processed with a single MaxQuant run. The summary information consists of some MaxQuant parameters, information of the raw file contents, and statistics on the peak detection. Based on this file a quick overview can be gathered on the quality of the data in the raw file.

The last row in this file contains the summary information for each column on each of the processed files.

Name	Separator	Description
Raw file		The raw file processed.
Experiment		Experiment name assigned to this LC-MS run in the experimental design.
Enzyme		The protease used to digest the protein sample.
Enzyme mode		The protease used to digest the protein sample.
Enzyme first search		The protease used for the first search.
Enzyme mode first search		The protease used for the first search.
Use enzyme first search		Marked with '+' when a different protease setup was used for the first search.
Variable modifications		The variable modification(s) used during the identification of peptides.
Fixed modifications		The fixed modification(s) used during the identification of peptides.
Multi modifications		The multi modification(s) used during the identification of peptides.
Variable modifications first search		The variable modification(s) used during the first search.
Use variable modifications first search		Marked with '+' when different variable modifications were used for the first search.
Requantify		The number of labels used.
Multiplicity		The number of labels used.
Max. missed cleavages		The maximum allowed number of missed cleavages.
Labels0		The labels used in the labeling experiment. Allowed values for X: 0=light; 1=medium; 2=heavy label partner.
LC-MS run type		The type of LC-MS run. Usually it will be 'Standard' which refers to a conventional shotgun proteomics run with data-dependent MS/MS.
Time-dependent recalibration		When marked with '+', time-dependent recalibration was applied to improve the data quality.
MS		The number of MS spectra recorded in this raw file.
MS/MS		The number of MS/MS spectra recorded in this raw file.
MS3		The number of MS3 spectra recorded in this raw file.
MS/MS Submitted		The number of tandem MS spectra submitted for analysis.
MS/MS Submitted (SIL)		The number of tandem MS spectra submitted for analysis, where the precursor ion was detected as part of a labeling cluster.
MS/MS Submitted (ISO)		The number of tandem MS spectra submitted for analysis, where the precursor ion was detected as an isotopic pattern.
MS/MS Submitted (PEAK)		The number of tandem MS spectra submitted for analysis, where the precursor ion was detected as a single peak.
MS/MS Identified		The total number of identified tandem MS spectra.
MS/MS Identified (SIL)		The total number of identified tandem MS spectra, where the precursor ion was detected as part of a labeling cluster.
MS/MS Identified (ISO)		The total number of identified tandem MS spectra, where the precursor ion was detected as an isotopic pattern.
MS/MS Identified (PEAK)		The total number of identified tandem MS spectra, where the precursor ion was detected as a single peak.
MS/MS Identified [%]		The percentage of identified tandem MS spectra.
MS/MS Identified (SIL) [%]		The percentage of identified tandem MS spectra, where the precursor ion was detected as part of a labeling cluster.
MS/MS Identified (ISO) [%]		The percentage of identified tandem MS spectra, where the precursor ion was detected as an isotopic pattern.
MS/MS Identified (PEAK) [%]		The percentage of identified tandem MS spectra, where the precursor ion was detected as a single peak.
Peptide Sequences Identified		The total number of unique peptide amino acid sequences identified from the recorded tandem mass spectra.
Peaks		The total number of peaks detected in the full scans.
Peaks Sequenced		The total number of peaks sequenced by tandem MS.

Peaks Sequenced [%]		The percentage of peaks sequenced by tandem MS.
Peaks Repeatedly Sequenced		The total number of peaks repeatedly sequenced (i.e. 1 or more times) by tandem MS.
Peaks Repeatedly Sequenced [%]		The percentage of peaks repeatedly sequenced (i.e. 1 or more times) by tandem MS.
Isotope Patterns		The total number of detected isotope patterns.
Isotope Patterns Sequenced		The total number of isotope patterns sequenced by tandem MS.
Isotope Patterns Sequenced (z>1)		The total number of isotope patterns sequenced by tandem MS with a charge state of 2 or more.
Isotope Patterns Sequenced [%]		The percentage of isotope patterns sequenced by tandem MS.
Isotope Patterns Sequenced (z>1) [%]		The percentage of isotope patterns sequenced by tandem MS with a charge state of 2 or more.
Isotope Patterns Repeatedly Sequenced		The total number of isotope patterns repeatedly sequenced (i.e. 1 or more times) by tandem MS.
Isotope Patterns Repeatedly Sequenced [%]		The percentage of isotope patterns repeatedly sequenced (i.e. 1 or more times) by tandem MS.
Recalibrated		When marked with '+', the masses taken from the raw file were recalibrated.
Av. Absolute Mass Deviation [ppm]		The average absolute mass deviation found comparing to the identification mass in parts per million.
Mass Standard Deviation [ppm]		The standard deviation of the mass deviation found comparing to the identification mass in parts per million.
Av. Absolute Mass Deviation [mDa]		The average absolute mass deviation found comparing to the identification mass in milli-Dalton.
Mass Standard Deviation [mDa]		The standard deviation of the mass deviation found comparing to the identification mass in milli-Dalton.
Label free norm param		The normalization factor used to scale the intensity values in a label-free experiment.

# Evidence

The evidence file combines all the information about the identified peptides and normally is the only file required for processing the results. Additional information about the peptides, modifications, proteins, etc. can be found in the other files by unique identifier linkage.

Name	Separator	Description
Sequence		The identified AA sequence of the peptide.
Length		The length of the sequence stored in the column 'Sequence'.
Modifications		Post-translational modifications contained within the identified peptide sequence.
Modified sequence		Sequence representation including the post-translational modifications (abbreviation of the modification in brackets before the modified AA). The sequence is always surrounded by underscore characters ('_').
DeamNQ Probabilities		Sequence representation of the peptide including PTM positioning probabilities ([0..1], where 1 is best match) for 'DeamNQ'.
OxiM Probabilities		Sequence representation of the peptide including PTM positioning probabilities ([0..1], where 1 is best match) for 'OxiM'.
DeamNQ Score Diffs		Sequence representation for each of the possible PTM positions in each possible configuration, the difference is calculated between the identification score with the PTM added to that position and the best scoring identification where no PTM is added to that position. When this value is negative, it is unlikely that the particular modification is located at this position.
OxiM Score Diffs		Sequence representation for each of the possible PTM positions in each possible configuration, the difference is calculated between the identification score with the PTM added to that position and the best scoring identification where no PTM is added to that position. When this value is negative, it is unlikely that the particular modification is located at this position.
AcetyINT		The number of occurrences of the modification 'AcetyINT'.
DeamNQ		The number of occurrences of the modification 'DeamNQ'.
OxiM		The number of occurrences of the modification 'OxiM'.
Missed cleavages		Number of missed enzymatic cleavages.
Proteins		The identifiers of the proteins this particular peptide is associated with.
Leading proteins		The identifiers of the proteins in the proteinGroups file, with this protein as best match, this particular peptide is associated with. When multiple matches are found here, the best scoring protein can be found in the 'Leading Razor Protein' column.
Leading razor protein		The identifier of the best scoring protein, from the proteinGroups file this, this peptide is associated to.
Type		The type of the feature. 'MSMS' for an MS/MS spectrum without an MS1 isotope pattern assigned. 'ISO-MSMS' MS1 isotope cluster identified by MS/MS. 'MULTI-MSMS' MS1 labeling cluster identified by MS/MS. 'MULTI-SECPEP' MS1 labeling cluster identified by MS/MS as second peptide. 'MULTI-MATCH' MS1 labeling cluster identified by matching between runs. In case of label-free data there is no difference between 'MULTI' and 'ISO'.
Raw file		The name of the RAW-file the mass spectral data was derived from.
Experiment		
MS/MS m/z		The m/z used for fragmentation (not necessarily the mono-isotopic m/z).
Charge		The charge-state of the precursor ion.
m/z		The recalibrated mass-over-charge value of the precursor ion.
Mass		The predicted monoisotopic mass of the identified peptide sequence.
Uncalibrated - Calibrated m/z [ppm]		The difference between the uncalibrated and recalibrated mass-over-charge value of the precursor ion measured in parts-per-million. This gives an indication of the mass drift in the original data, which was automatically corrected by MaxQuant.
Uncalibrated - Calibrated m/z [Da]		The difference between the uncalibrated and recalibrated mass-over-charge value of the precursor ion measured in parts-per-million. This gives an indication of the mass drift in the original data, which was automatically corrected by MaxQuant.

Mass error [ppm]		Mass error of the recalibrated mass-over-charge value of the precursor ion in comparison to the predicted monoisotopic mass of the identified peptide sequence in parts per million.
Mass error [Da]		Mass error of the recalibrated mass-over-charge value of the precursor ion in comparison to the predicted monoisotopic mass of the identified peptide sequence in milli-Dalton.
Uncalibrated mass error [ppm]		Mass error of the uncalibrated mass-over-charge value of the precursor ion in comparison to the predicted monoisotopic mass of the identified peptide sequence.  Note: This column can contain missing values (denoted as NaN).
Uncalibrated mass error [Da]		Mass error of the uncalibrated mass-over-charge value of the precursor ion in comparison to the predicted monoisotopic mass of the identified peptide sequence.  Note: This column can contain missing values (denoted as NaN).
Max intensity m/z 0		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Retention time		The uncalibrated retention time in minutes in the elution profile of the precursor ion.
Retention length		The total retention time length of the peak (last time point - first time point).
Calibrated retention time		The recalibrated retention time in minutes in the elution profile of the precursor ion.
Calibrated retention time start		The recalibrated retention start in minutes in the elution profile of the precursor ion.
Calibrated retention time finish		The recalibrated retention finish in minutes in the elution profile of the precursor ion.
Retention time calibration		The difference in minutes between the uncalibrated and recalibrated retention time. This gives an indication of the retention time drift in the original data, which was automatically corrected by MaxQuant.  Note: This column can contain missing values (NaN).
Match time difference		When the option match between runs is used in MaxQuant, this value indicates the time difference between the feature from the raw file it was taken from and the feature from the raw file it was matched to.
Match m/z difference		When the option match between runs is used in MaxQuant, this value indicates the m/z difference between the feature from the raw file it was taken from and the feature from the raw file it was matched to.
Match q-value		This is the q-value for features that have been identified by 'matching between runs'.
Match score		The andromeda score of the MS/MS identification that is the source of this identification by 'matching between runs'.
Number of data points		The number of data points (peak centroids) collected for this peptide feature.
Number of scans		The number of MS scans that the 3d peaks of this peptide feature are overlapping with.
Number of isotopic peaks		The number of isotopic peaks contained in this peptide feature.
PIF		Short for Parent Ion Fraction; indicates the fraction the target peak makes up of the total intensity in the inclusion window.
Fraction of total spectrum		The percentage the ion intensity makes up of the total intensity of the whole spectrum.
Base peak fraction		The percentage the parent ion intensity in comparison to the highest peak in the MS spectrum.
PEP		Posterior Error Probability of the identification. This value essentially operates as a p-value, where smaller is more significant.
MS/MS count		The number of sequencing events for this sequence, which matches the number of identifiers stored in the column MS/MS IDs.
MS/MS scan number		The RAW-file derived scan number of the MS/MS with the highest peptide identification score (the highest score is stored in the column 'Score').
Score		Andromeda score for the best associated MS/MS spectrum.
Delta score		Score difference to the second best identified peptide.
Combinatorics		Number of possible distributions of the modifications over the peptide sequence.
Intensity		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Reverse		When marked with '+', this particular peptide was found to be part of a protein derived from the reversed part of the decoy database. These should be removed for further data analysis.

Potential contaminant		When marked with '+', this particular peptide was found to be part of a commonly occurring contaminant. These should be removed for further data analysis.
id		A unique (consecutive) identifier for each row in the evidence table, which is used to cross-link the information in this file with the information stored in the other files.
Protein group IDs		The identifier of the protein-group this redundant peptide sequence is associated with, which can be used to look up the extended protein information in the file 'proteinGroups.txt'. As a single peptide can be linked to multiple proteins (e.g. in the case of razor-proteins), multiple ids can be stored here separated by a semicolon. As a protein can be identified by multiple peptides, the same id can be found in different rows.
Peptide ID		The identifier of the non-redundant peptide sequence.
Mod. peptide ID		Identifier of the associated modification summary stored in the file 'modificationSpecificPeptides.txt'.
MS/MS IDs		Identifier(s) of the associated MS/MS summary(s) stored in the file 'msms.txt'.
Best MS/MS		Identifier(s) of the best MS/MS associated spectrum stored in the file 'msms.txt'.
DeamNQ site IDs		Identifier(s) of the modification summary stored in the file 'DeamNQSites.txt'.
OxiM site IDs		Identifier(s) of the modification summary stored in the file 'OxiMSites.txt'.
Taxonomy IDs		Taxonomy identifiers.

# Peptides

The peptides table contains information on the identified peptides in the processed raw-files.

Name	Separator	Description
Sequence		The amino acid sequence of the identified peptide.
N-term cleavage window		Sequence window from -15 to 15 around the N-terminal cleavage site of this peptide.
C-term cleavage window		Sequence window from -15 to 15 around the C-terminal cleavage site of this peptide.
Amino acid before		The amino acid in the protein sequence before the peptide.
First amino acid		The amino acid in the first position of the peptide sequence.
Second amino acid		The amino acid in the first position of the peptide sequence.
Second last amino acid		The amino acid in the last position of the peptide sequence.
Last amino acid		The amino acid in the last position of the peptide sequence.
Amino acid after		The amino acid in the protein sequence after the peptide.
A Count		The number of instances of the 'A' amino acid contained within the sequence.
R Count		The number of instances of the 'R' amino acid contained within the sequence.
N Count		The number of instances of the 'N' amino acid contained within the sequence.
D Count		The number of instances of the 'D' amino acid contained within the sequence.
C Count		The number of instances of the 'C' amino acid contained within the sequence.
Q Count		The number of instances of the 'Q' amino acid contained within the sequence.
E Count		The number of instances of the 'E' amino acid contained within the sequence.
G Count		The number of instances of the 'G' amino acid contained within the sequence.
H Count		The number of instances of the 'H' amino acid contained within the sequence.
I Count		The number of instances of the 'I' amino acid contained within the sequence.
L Count		The number of instances of the 'L' amino acid contained within the sequence.
K Count		The number of instances of the 'K' amino acid contained within the sequence.
M Count		The number of instances of the 'M' amino acid contained within the sequence.
F Count		The number of instances of the 'F' amino acid contained within the sequence.
P Count		The number of instances of the 'P' amino acid contained within the sequence.
S Count		The number of instances of the 'S' amino acid contained within the sequence.
T Count		The number of instances of the 'T' amino acid contained within the sequence.
W Count		The number of instances of the 'W' amino acid contained within the sequence.
Y Count		The number of instances of the 'Y' amino acid contained within the sequence.
V Count		The number of instances of the 'V' amino acid contained within the sequence.
U Count		The number of instances of the 'U' amino acid contained within the sequence.
O Count		The number of instances of the 'O' amino acid contained within the sequence.
Length		The length of the sequence stored in the column "Sequence".
Missed cleavages		Number of missed enzymatic cleavages.
Mass		Monoisotopic mass of the peptide.
Proteins		Identifiers of proteins this peptide is associated with.
Leading razor protein		Identifier of the leading protein in the protein group which uses this peptide for quantification. (Either unique or razor.)
Start position		Position of the first amino acid of this peptide in the protein sequence. (one-based)
End position		Position of the last amino acid of this peptide in the protein sequence. (one-based)

Unique (Groups)		When marked with '+', this particular peptide is unique to a single protein group in the proteinGroups file.
Unique (Proteins)		When marked with '+', this particular peptide is unique to a single protein sequence in the fasta file(s).
Charges		All charge states that have been observed.
PEP		Posterior Error Probability of the identification. This value essentially operates as a p-value, where smaller is more significant.
Score		Highest Andromeda score for the associated MS/MS spectra.
Identification type 52		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 53		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 54		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 55		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 56		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 57		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 58		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 59		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 60		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 61		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 62		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 63		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 64		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 65		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 66		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 67		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 68		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 69		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 70		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 71		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 72		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 73		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 74		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 75		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 76		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 77		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 78		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 79		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 80		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 81		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 82		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 83		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 84		Indicates whether this experiment was identified by MS/MS or only by matching between runs.









Intensity 93		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 94		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 95		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 96		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Reverse		When marked with '+', this particular peptide was found to be part of a protein derived from the reversed part of the decoy database. These should be removed for further data analysis.
Potential contaminant		When marked with '+', this particular peptide was found to be part of a commonly occurring contaminant. These should be removed for further data analysis.
id		A unique (consecutive) identifier for each row in the peptides table, which is used to cross-link the information in this table with the information stored in the other tables.
Protein group IDs		The identifiers of the protein groups this peptide was linked to, referenced against the proteinGroups table.
Mod. peptide IDs		Identifier(s) for peptide sequence(s), associated with the peptide, referenced against the corresponding modified peptides table.
Evidence IDs		Identifier(s) for analyzed peptide evidence associated with the protein group referenced against the evidence table.
MS/MS IDs		The identifiers of the MS/MS scans identifying this peptide, referenced against the msms table.
Best MS/MS		The identifier of the best (in terms of quality) MS/MS scan identifying this peptide, referenced against the msms table.
DeamNQ site IDs		Identifier(s) for site(s) associated with the protein group, which show(s) evidence of the modification, referenced against the appropriate modification site file.
OxiM site IDs		Identifier(s) for site(s) associated with the protein group, which show(s) evidence of the modification, referenced against the appropriate modification site file.
Taxonomy IDs		Taxonomy identifiers.
MS/MS Count		
LFQ intensity 52		
LFQ intensity 53		
LFQ intensity 54		
LFQ intensity 55		
LFQ intensity 56		
LFQ intensity 57		
LFQ intensity 58		
LFQ intensity 59		
LFQ intensity 60		
LFQ intensity 61		
LFQ intensity 62		
LFQ intensity 63		
LFQ intensity 64		
LFQ intensity 65		
LFQ intensity 66		
LFQ intensity 67		
LFQ intensity 68		
LFQ intensity 69		
LFQ intensity 70		
LFQ intensity 71		
LFQ intensity 72		
LFQ intensity 73		
LFQ intensity 74		
LFQ intensity 75		
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LFQ intensity 79		
LFQ intensity 80		

LFQ intensity 81		
LFQ intensity 82		
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LFQ intensity 86		
LFQ intensity 87		
LFQ intensity 88		
LFQ intensity 89		
LFQ intensity 90		
LFQ intensity 91		
LFQ intensity 92		
LFQ intensity 93		
LFQ intensity 94		
LFQ intensity 95		
LFQ intensity 96		

# Modification-specific peptides

Name	Separator	Description
Sequence		The identified AA sequence of the peptide.
Modifications		Post-translational modifications contained within the sequence. When no modifications exist, this is set to 'unmodified'.
Mass		Charge corrected mass of the precursor ion.
Mass Fractional Part		The values after the decimal point (ie value - floor(value)).
Protein Groups		IDs of the protein groups to which this peptide belongs.
Proteins		The identifiers of the proteins this particular peptide is associated with.
Unique (Groups)		When marked with '+', this particular peptide is unique to a single protein group in the proteinGroups file.
Unique (Proteins)		When marked with '+', this particular peptide is unique to a single protein sequence in the fasta file(s).
AcetylNT		Number of AcetylNT on this peptide.
DeamNQ		Number of DeamNQ on this peptide.
OxiM		Number of OxiM on this peptide.
Missed cleavages		Number of missed enzymatic cleavages.
Identification type 52		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 53		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 54		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 55		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 56		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 57		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 58		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 59		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 60		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 61		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 62		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 63		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 64		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 65		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 66		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 67		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 68		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 69		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 70		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 71		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 72		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 73		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 74		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 75		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 76		Indicates whether this experiment was identified by MS/MS or only by matching between runs.



Experiment 82		Number of evidence entries for this 'Experiment'.
Experiment 83		Number of evidence entries for this 'Experiment'.
Experiment 84		Number of evidence entries for this 'Experiment'.
Experiment 85		Number of evidence entries for this 'Experiment'.
Experiment 86		Number of evidence entries for this 'Experiment'.
Experiment 87		Number of evidence entries for this 'Experiment'.
Experiment 88		Number of evidence entries for this 'Experiment'.
Experiment 89		Number of evidence entries for this 'Experiment'.
Experiment 90		Number of evidence entries for this 'Experiment'.
Experiment 91		Number of evidence entries for this 'Experiment'.
Experiment 92		Number of evidence entries for this 'Experiment'.
Experiment 93		Number of evidence entries for this 'Experiment'.
Experiment 94		Number of evidence entries for this 'Experiment'.
Experiment 95		Number of evidence entries for this 'Experiment'.
Experiment 96		Number of evidence entries for this 'Experiment'.
Retention time		Retention time in minutes averaged over the evidence entries belonging to this modification-specific peptide.
Calibrated retention time		Calibrated retention time averaged over the evidence entries belonging to this modification-specific peptide. Obviously this only makes sense if retention time recalibration has been performed which is the case when matching between run is selected.
Charges		All charge states that have been observed.
PEP		Posterior Error Probability of the identification. This value essentially operates as a p-value, where smaller is more significant.
MS/MS scan number		The RAW-file derived scan number of the MS/MS with the highest peptide identification score (the highest score is stored in the column 'Score').
Raw file		The name of the RAW-file the mass spectral data was derived from.
Score		Andromeda score for the best identified among the associated MS/MS spectra.
Delta score		Score difference to the second best identified peptide.
Reverse		When marked with '+', this particular peptide was found to be part of a protein derived from the reversed part of the decoy database. These should be removed for further data analysis.
Potential contaminant		When marked with '+', this particular peptide was found to be part of a commonly occurring contaminant. These should be removed for further data analysis.
Intensity		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 52		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 53		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 54		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 55		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 56		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 57		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 58		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 59		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.





Intensity 81		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 82		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 83		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 84		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 85		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 86		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 87		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 88		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 89		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 90		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 91		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 92		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 93		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 94		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 95		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 96		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
id		A unique (consecutive) identifier for each row in the peptides table, which is used to cross-link the information in this table with the information stored in the other tables.
Protein group IDs		The identifiers of the protein groups this peptide was linked to, referenced against the proteinGroups table.
Peptide ID		Identifier of the associated peptide sequence summary, which can be found in the file 'peptides.txt'.
Evidence IDs		Identifier(s) for analyzed peptide evidence associated with the protein group referenced against the evidence table.
MS/MS IDs		The identifiers of the MS/MS scans identifying this peptide, referenced against the msms table.
Best MS/MS		The identifier of the best (in terms of quality) MS/MS scan identifying this peptide, referenced against the msms table.
DeamNQ site IDs		Identifier(s) for site(s) associated with this peptide, which show(s) evidence of the modification, referenced against the appropriate modification site file.
OxiM site IDs		Identifier(s) for site(s) associated with this peptide, which show(s) evidence of the modification, referenced against the appropriate modification site file.

MS/MS Count		
Taxonomy IDs		Taxonomy identifiers.

# DeamNQSites

Name	Separator	Description
Proteins		Identifiers of proteins this site is associated with.
Positions within proteins		For each protein identifier in the 'Proteins' column you find here the position of the site in the respective protein sequence. The index of the first amino acid in the sequence is 1.
Leading proteins		
Protein		Identifier of the protein this peptide is associated with.
Fasta headers		Descriptions of proteins this peptide is associated with.
Localization prob		
Score diff		
PEP		The posterior error probability (PEP) of the best identified modified peptide containing this site.
Score		The Andromeda score of the best identified modified peptide containing this site.
Delta score		The Andromeda delta score of the best identified modified peptide containing this site.
Score for localization		The Andromeda score of the MS/MS spectrum used for calculating the localization score for this site.
Localization prob 52		
Score diff 52		
PEP 52		
Score 52		
Localization prob 53		
Score diff 53		
PEP 53		
Score 53		
Localization prob 54		
Score diff 54		
PEP 54		
Score 54		
Localization prob 55		
Score diff 55		
PEP 55		
Score 55		
Localization prob 56		
Score diff 56		
PEP 56		
Score 56		
Localization prob 57		
Score diff 57		
PEP 57		
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Localization prob 58		
Score diff 58		
PEP 58		
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Localization prob 59		
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PEP 59		
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Localization prob 60		
Score diff 60		
PEP 60		
Score 60		
Localization prob 61		
Score diff 61		
PEP 61		
Score 61		
Localization prob 62		
Score diff 62		

PEP 62		
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Localization prob 63		
Score diff 63		
PEP 63		
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Localization prob 64		
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PEP 67		
Score 67		
Localization prob 68		
Score diff 68		
PEP 68		
Score 68		
Localization prob 69		
Score diff 69		
PEP 69		
Score 69		
Localization prob 70		
Score diff 70		
PEP 70		
Score 70		
Localization prob 71		
Score diff 71		
PEP 71		
Score 71		
Localization prob 72		
Score diff 72		
PEP 72		
Score 72		
Localization prob 73		
Score diff 73		
PEP 73		
Score 73		
Localization prob 74		
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PEP 74		
Score 74		
Localization prob 75		
Score diff 75		
PEP 75		
Score 75		
Localization prob 76		
Score diff 76		
PEP 76		
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Localization prob 77		
Score diff 77		
PEP 77		
Score 77		
Localization prob 78		
Score diff 78		

PEP 78		
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Localization prob 79		
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Localization prob 80		
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Localization prob 90		
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PEP 90		
Score 90		
Localization prob 91		
Score diff 91		
PEP 91		
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Localization prob 92		
Score diff 92		
PEP 92		
Score 92		
Localization prob 93		
Score diff 93		
PEP 93		
Score 93		
Localization prob 94		
Score diff 94		

PEP 94		
Score 94		
Localization prob 95		
Score diff 95		
PEP 95		
Score 95		
Localization prob 96		
Score diff 96		
PEP 96		
Score 96		
Diagnostic peak		
Number of DeamNQ		Different numbers of DeamNQ on peptides that this site is involved in.
Amino acid		
Sequence window		
Modification window		
Peptide window coverage		
DeamNQ Probabilities		
DeamNQ Score diffs		
Position in peptide		
Charge		Charge state of the precursor ion.
Mass error [ppm]		Mass error of the recalibrated mass-over-charge value of the precursor ion in comparison to the predicted monoisotopic mass of the identified peptide sequence.
Identification type 52		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 53		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 54		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 55		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 56		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 57		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 58		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 59		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 60		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 61		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 62		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 63		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 64		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 65		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 66		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 67		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 68		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 69		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 70		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 71		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 72		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 73		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 74		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 75		Indicates whether this experiment was identified by MS/MS or only by matching between runs.









Ratio mod/base 59		
Ratio mod/base 60		
Ratio mod/base 61		
Ratio mod/base 62		
Ratio mod/base 63		
Ratio mod/base 64		
Ratio mod/base 65		
Ratio mod/base 66		
Ratio mod/base 67		
Ratio mod/base 68		
Ratio mod/base 69		
Ratio mod/base 70		
Ratio mod/base 71		
Ratio mod/base 72		
Ratio mod/base 73		
Ratio mod/base 74		
Ratio mod/base 75		
Ratio mod/base 76		
Ratio mod/base 77		
Ratio mod/base 78		
Ratio mod/base 79		
Ratio mod/base 80		
Ratio mod/base 81		
Ratio mod/base 82		
Ratio mod/base 83		
Ratio mod/base 84		
Ratio mod/base 85		
Ratio mod/base 86		
Ratio mod/base 87		
Ratio mod/base 88		
Ratio mod/base 89		
Ratio mod/base 90		
Ratio mod/base 91		
Ratio mod/base 92		
Ratio mod/base 93		
Ratio mod/base 94		
Ratio mod/base 95		
Ratio mod/base 96		
Intensity 52__1		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 52__2		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 52__3		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 53__1		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 53__2		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 53__3		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 54__1		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 54__2		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.















Intensity 96___3		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Occupancy 52		
Occupancy ratio52		
Occupancy error scale 52		
Occupancy 53		
Occupancy ratio53		
Occupancy error scale 53		
Occupancy 54		
Occupancy ratio54		
Occupancy error scale 54		
Occupancy 55		
Occupancy ratio55		
Occupancy error scale 55		
Occupancy 56		
Occupancy ratio56		
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Occupancy 57		
Occupancy ratio57		
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Occupancy ratio67		
Occupancy error scale 67		
Occupancy 68		
Occupancy ratio68		
Occupancy error scale 68		
Occupancy 69		
Occupancy ratio69		
Occupancy error scale 69		
Occupancy 70		
Occupancy ratio70		
Occupancy error scale 70		
Occupancy 71		
Occupancy ratio71		
Occupancy error scale 71		
Occupancy 72		

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Occupancy ratio90		
Occupancy error scale 90		
Occupancy 91		
Occupancy ratio91		
Occupancy error scale 91		
Occupancy 92		
Occupancy ratio92		
Occupancy error scale 92		
Occupancy 93		
Occupancy ratio93		

Occupancy error scale 93		
Occupancy 94		
Occupancy ratio94		
Occupancy error scale 94		
Occupancy 95		
Occupancy ratio95		
Occupancy error scale 95		
Occupancy 96		
Occupancy ratio96		
Occupancy error scale 96		
Reverse		When marked with '+', this particular peptide was found to be part of a protein derived from the reversed part of the protein sequence database. These should be removed for further data analysis.
Potential contaminant		When marked with '+', this particular peptide was found to be part of a commonly occurring contaminant. These should be removed for further data analysis.
id		A unique (consecutive) identifier for each row in the site table, which is used to cross-link the information in this file with the information stored in the other files.
Protein group IDs		The identifier of the protein-group this peptide sequence is associated with, which can be used to look up the extended protein information in the file 'proteinGroups.txt'. As a single peptide can be linked to multiple proteins (e.g. in the case of razor-proteins), multiple id's can be stored here separated by a semicolon. As a protein can be identified by multiple peptides, the same id can be found in different rows.
Positions		The positions of the modifications in the protein amino acid sequence.
Position		The position of the modification in the protein amino acid sequence.
Peptide IDs		Identifier(s) of the associated peptide sequence(s) summary, which can be found in the file 'peptides.txt'.
Mod. peptide IDs		Identifier(s) of the associated peptide sequence(s) summary, which can be found in the file 'modificationSpecificPeptides.txt'.
Evidence IDs		Identifier(s) for analyzed peptide evidence associated with the protein group referenced against the evidence table.
MS/MS IDs		The identifiers of the MS/MS scans identifying this peptide, referenced against the msms table.
Best localization evidence ID		
Best localization MS/MS ID		
Best localization raw file		
Best localization scan number		
Best score evidence ID		
Best score MS/MS ID		
Best score raw file		
Best score scan number		
Best PEP evidence ID		
Best PEP MS/MS ID		
Best PEP raw file		
Best PEP scan number		

# OxiMSites

Name	Separator	Description
Proteins		Identifiers of proteins this site is associated with.
Positions within proteins		For each protein identifier in the 'Proteins' column you find here the position of the site in the respective protein sequence. The index of the first amino acid in the sequence is 1.
Leading proteins		
Protein		Identifier of the protein this peptide is associated with.
Fasta headers		Descriptions of proteins this peptide is associated with.
Localization prob		
Score diff		
PEP		The posterior error probability (PEP) of the best identified modified peptide containing this site.
Score		The Andromeda score of the best identified modified peptide containing this site.
Delta score		The Andromeda delta score of the best identified modified peptide containing this site.
Score for localization		The Andromeda score of the MS/MS spectrum used for calculating the localization score for this site.
Localization prob 52		
Score diff 52		
PEP 52		
Score 52		
Localization prob 53		
Score diff 53		
PEP 53		
Score 53		
Localization prob 54		
Score diff 54		
PEP 54		
Score 54		
Localization prob 55		
Score diff 55		
PEP 55		
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Localization prob 56		
Score diff 56		
PEP 56		
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Localization prob 57		
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Localization prob 93		
Score diff 93		
PEP 93		
Score 93		
Localization prob 94		
Score diff 94		

PEP 94		
Score 94		
Localization prob 95		
Score diff 95		
PEP 95		
Score 95		
Localization prob 96		
Score diff 96		
PEP 96		
Score 96		
Diagnostic peak		
Number of OxiM		Different numbers of OxiM on peptides that this site is involved in.
Amino acid		
Sequence window		
Modification window		
Peptide window coverage		
OxiM Probabilities		
OxiM Score diffs		
Position in peptide		
Charge		Charge state of the precursor ion.
Mass error [ppm]		Mass error of the recalibrated mass-over-charge value of the precursor ion in comparison to the predicted monoisotopic mass of the identified peptide sequence.
Identification type 52		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 53		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 54		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 55		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 56		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 57		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 58		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 59		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 60		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 61		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 62		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 63		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 64		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 65		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 66		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 67		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 68		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 69		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 70		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 71		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 72		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 73		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 74		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 75		Indicates whether this experiment was identified by MS/MS or only by matching between runs.









Ratio mod/base 59		
Ratio mod/base 60		
Ratio mod/base 61		
Ratio mod/base 62		
Ratio mod/base 63		
Ratio mod/base 64		
Ratio mod/base 65		
Ratio mod/base 66		
Ratio mod/base 67		
Ratio mod/base 68		
Ratio mod/base 69		
Ratio mod/base 70		
Ratio mod/base 71		
Ratio mod/base 72		
Ratio mod/base 73		
Ratio mod/base 74		
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Ratio mod/base 86		
Ratio mod/base 87		
Ratio mod/base 88		
Ratio mod/base 89		
Ratio mod/base 90		
Ratio mod/base 91		
Ratio mod/base 92		
Ratio mod/base 93		
Ratio mod/base 94		
Ratio mod/base 95		
Ratio mod/base 96		
Intensity 52__1		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 52__2		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 52__3		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 53__1		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 53__2		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 53__3		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 54__1		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 54__2		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.















Intensity 96___3		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Occupancy 52		
Occupancy ratio52		
Occupancy error scale 52		
Occupancy 53		
Occupancy ratio53		
Occupancy error scale 53		
Occupancy 54		
Occupancy ratio54		
Occupancy error scale 54		
Occupancy 55		
Occupancy ratio55		
Occupancy error scale 55		
Occupancy 56		
Occupancy ratio56		
Occupancy error scale 56		
Occupancy 57		
Occupancy ratio57		
Occupancy error scale 57		
Occupancy 58		
Occupancy ratio58		
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Occupancy 67		
Occupancy ratio67		
Occupancy error scale 67		
Occupancy 68		
Occupancy ratio68		
Occupancy error scale 68		
Occupancy 69		
Occupancy ratio69		
Occupancy error scale 69		
Occupancy 70		
Occupancy ratio70		
Occupancy error scale 70		
Occupancy 71		
Occupancy ratio71		
Occupancy error scale 71		
Occupancy 72		

Occupancy ratio72		
Occupancy error scale 72		
Occupancy 73		
Occupancy ratio73		
Occupancy error scale 73		
Occupancy 74		
Occupancy ratio74		
Occupancy error scale 74		
Occupancy 75		
Occupancy ratio75		
Occupancy error scale 75		
Occupancy 76		
Occupancy ratio76		
Occupancy error scale 76		
Occupancy 77		
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Occupancy error scale 89		
Occupancy 90		
Occupancy ratio90		
Occupancy error scale 90		
Occupancy 91		
Occupancy ratio91		
Occupancy error scale 91		
Occupancy 92		
Occupancy ratio92		
Occupancy error scale 92		
Occupancy 93		
Occupancy ratio93		

Occupancy error scale 93		
Occupancy 94		
Occupancy ratio94		
Occupancy error scale 94		
Occupancy 95		
Occupancy ratio95		
Occupancy error scale 95		
Occupancy 96		
Occupancy ratio96		
Occupancy error scale 96		
Reverse		When marked with '+', this particular peptide was found to be part of a protein derived from the reversed part of the protein sequence database. These should be removed for further data analysis.
Potential contaminant		When marked with '+', this particular peptide was found to be part of a commonly occurring contaminant. These should be removed for further data analysis.
id		A unique (consecutive) identifier for each row in the site table, which is used to cross-link the information in this file with the information stored in the other files.
Protein group IDs		The identifier of the protein-group this peptide sequence is associated with, which can be used to look up the extended protein information in the file 'proteinGroups.txt'. As a single peptide can be linked to multiple proteins (e.g. in the case of razor-proteins), multiple id's can be stored here separated by a semicolon. As a protein can be identified by multiple peptides, the same id can be found in different rows.
Positions		The positions of the modifications in the protein amino acid sequence.
Position		The position of the modification in the protein amino acid sequence.
Peptide IDs		Identifier(s) of the associated peptide sequence(s) summary, which can be found in the file 'peptides.txt'.
Mod. peptide IDs		Identifier(s) of the associated peptide sequence(s) summary, which can be found in the file 'modificationSpecificPeptides.txt'.
Evidence IDs		Identifier(s) for analyzed peptide evidence associated with the protein group referenced against the evidence table.
MS/MS IDs		The identifiers of the MS/MS scans identifying this peptide, referenced against the msms table.
Best localization evidence ID		
Best localization MS/MS ID		
Best localization raw file		
Best localization scan number		
Best score evidence ID		
Best score MS/MS ID		
Best score raw file		
Best score scan number		
Best PEP evidence ID		
Best PEP MS/MS ID		
Best PEP raw file		
Best PEP scan number		

# Protein groups

The Protein Groups table contains information on the identified proteins in the processed raw-files. Each single row contains the group of proteins that could be reconstructed from a set of peptides.

Name	Separator	Description
Protein IDs		Identifiers of proteins contained in the protein group. They are sorted by number of identified peptides in descending order.
Majority protein IDs		These are the IDs of those proteins that have at least half of the peptides that the leading protein has.
Peptide counts (all)		Number of peptides associated with each protein in protein group, occurring in the order as the protein IDs occur in the 'Protein IDs' column. Here distinct peptide sequences are counted. Modified forms or different charges are counted as one peptide.
Peptide counts (razor+unique)		Number of peptides associated with each protein in protein group, occurring in the order as the protein IDs occur in the 'Protein IDs' column. Here distinct peptide sequences are counted. Modified forms or different charges are counted as one peptide.
Peptide counts (unique)		Number of peptides associated with each protein in protein group, occurring in the order as the protein IDs occur in the 'Protein IDs' column. Here distinct peptide sequences are counted. Modified forms or different charges are counted as one peptide.
Fasta headers		Fasta headers(s) of protein(s) contained within the group.
Number of proteins		Number of proteins contained within the group. This corresponds to the number of entries in the column 'Protein IDs'.
Peptides		The total number of peptide sequences associated with the protein group (i.e. for all the proteins in the group).
Razor + unique peptides		The total number of razor + unique peptides associated with the protein group (i.e. these peptides are shared with another protein group).
Unique peptides		The total number of unique peptides associated with the protein group (i.e. these peptides are not shared with another protein group).
Peptides 52		Number of peptides (distinct peptide sequences) in experiment 52
Peptides 53		Number of peptides (distinct peptide sequences) in experiment 53
Peptides 54		Number of peptides (distinct peptide sequences) in experiment 54
Peptides 55		Number of peptides (distinct peptide sequences) in experiment 55
Peptides 56		Number of peptides (distinct peptide sequences) in experiment 56
Peptides 57		Number of peptides (distinct peptide sequences) in experiment 57
Peptides 58		Number of peptides (distinct peptide sequences) in experiment 58
Peptides 59		Number of peptides (distinct peptide sequences) in experiment 59
Peptides 60		Number of peptides (distinct peptide sequences) in experiment 60
Peptides 61		Number of peptides (distinct peptide sequences) in experiment 61
Peptides 62		Number of peptides (distinct peptide sequences) in experiment 62
Peptides 63		Number of peptides (distinct peptide sequences) in experiment 63
Peptides 64		Number of peptides (distinct peptide sequences) in experiment 64
Peptides 65		Number of peptides (distinct peptide sequences) in experiment 65
Peptides 66		Number of peptides (distinct peptide sequences) in experiment 66
Peptides 67		Number of peptides (distinct peptide sequences) in experiment 67
Peptides 68		Number of peptides (distinct peptide sequences) in experiment 68
Peptides 69		Number of peptides (distinct peptide sequences) in experiment 69









Unique peptides 94		Number of unique peptides (distinct peptide sequences) in experiment 94
Unique peptides 95		Number of unique peptides (distinct peptide sequences) in experiment 95
Unique peptides 96		Number of unique peptides (distinct peptide sequences) in experiment 96
Sequence coverage [%]		Percentage of the sequence that is covered by the identified peptides of the best protein sequence contained in the group.
Unique + razor sequence coverage [%]		Percentage of the sequence that is covered by the identified unique and razor peptides of the best protein sequence contained in the group.
Unique sequence coverage [%]		Percentage of the sequence that is covered by the identified unique peptides of the best protein sequence contained in the group.
Mol. weight [kDa]		Molecular weight of the leading protein sequence contained in the protein group.
Sequence length		The length of the leading protein sequence contained in the group.
Sequence lengths		The length of all sequences of the proteins contained in the group.
Q-value		This is the ratio of reverse to forward protein groups.
Score		Protein score which is derived from peptide posterior error probabilities.
Identification type 52		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 53		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 54		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 55		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 56		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 57		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 58		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 59		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 60		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 61		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 62		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 63		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 64		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 65		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 66		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 67		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 68		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 69		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 70		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 71		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 72		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 73		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 74		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 75		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 76		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 77		Indicates whether this experiment was identified by MS/MS or only by matching between runs.
Identification type 78		Indicates whether this experiment was identified by MS/MS or only by matching between runs.









Intensity 90		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 91		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 92		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 93		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 94		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 95		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensity 96		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
iBAQ peptides		
iBAQ		
iBAQ 52		
iBAQ 53		
iBAQ 54		
iBAQ 55		
iBAQ 56		
iBAQ 57		
iBAQ 58		
iBAQ 59		
iBAQ 60		
iBAQ 61		
iBAQ 62		
iBAQ 63		
iBAQ 64		
iBAQ 65		
iBAQ 66		
iBAQ 67		
iBAQ 68		
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iBAQ 75		
iBAQ 76		
iBAQ 77		
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iBAQ 80		
iBAQ 81		
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iBAQ 83		
iBAQ 84		
iBAQ 85		
iBAQ 86		
iBAQ 87		
iBAQ 88		
iBAQ 89		
iBAQ 90		
iBAQ 91		
iBAQ 92		

iBAQ 93		
iBAQ 94		
iBAQ 95		
iBAQ 96		
LFQ intensity 52		
LFQ intensity 53		
LFQ intensity 54		
LFQ intensity 55		
LFQ intensity 56		
LFQ intensity 57		
LFQ intensity 58		
LFQ intensity 59		
LFQ intensity 60		
LFQ intensity 61		
LFQ intensity 62		
LFQ intensity 63		
LFQ intensity 64		
LFQ intensity 65		
LFQ intensity 66		
LFQ intensity 67		
LFQ intensity 68		
LFQ intensity 69		
LFQ intensity 70		
LFQ intensity 71		
LFQ intensity 72		
LFQ intensity 73		
LFQ intensity 74		
LFQ intensity 75		
LFQ intensity 76		
LFQ intensity 77		
LFQ intensity 78		
LFQ intensity 79		
LFQ intensity 80		
LFQ intensity 81		
LFQ intensity 82		
LFQ intensity 83		
LFQ intensity 84		
LFQ intensity 85		
LFQ intensity 86		
LFQ intensity 87		
LFQ intensity 88		
LFQ intensity 89		
LFQ intensity 90		
LFQ intensity 91		
LFQ intensity 92		
LFQ intensity 93		
LFQ intensity 94		
LFQ intensity 95		
LFQ intensity 96		
MS/MS count 52		
MS/MS count 53		
MS/MS count 54		
MS/MS count 55		
MS/MS count 56		
MS/MS count 57		
MS/MS count 58		
MS/MS count 59		
MS/MS count 60		
MS/MS count 61		
MS/MS count 62		
MS/MS count 63		
MS/MS count 64		
MS/MS count 65		
MS/MS count 66		

MS/MS count 67		
MS/MS count 68		
MS/MS count 69		
MS/MS count 70		
MS/MS count 71		
MS/MS count 72		
MS/MS count 73		
MS/MS count 74		
MS/MS count 75		
MS/MS count 76		
MS/MS count 77		
MS/MS count 78		
MS/MS count 79		
MS/MS count 80		
MS/MS count 81		
MS/MS count 82		
MS/MS count 83		
MS/MS count 84		
MS/MS count 85		
MS/MS count 86		
MS/MS count 87		
MS/MS count 88		
MS/MS count 89		
MS/MS count 90		
MS/MS count 91		
MS/MS count 92		
MS/MS count 93		
MS/MS count 94		
MS/MS count 95		
MS/MS count 96		
MS/MS count		
Only identified by site		When marked with '+', this particular protein group was identified only by a modification site.
Reverse		When marked with '+', this particular protein group contains no protein, made up of at least 50% of the peptides of the leading protein, with a peptide derived from the reversed part of the decoy database. These should be removed for further data analysis. The 50% rule is in place to prevent spurious protein hits to erroneously flag the protein group as reverse.
Potential contaminant		When marked with '+', this particular protein group was found to be a commonly occurring contaminant. These should be removed for further data analysis.
id		A unique (consecutive) identifier for each row in the proteinGroups table, which is used to cross-link the information in this file with the information stored in the other files.
Peptide IDs		Identifier(s) of the associated peptide sequence(s) summary, which can be found in the file 'peptides.txt'.
Peptide is razor		Indicates for each peptide ID if it is a razor or group unique peptide (true) or a non unique non razor peptide (false).
Mod. peptide IDs		
Evidence IDs		
MS/MS IDs		
Best MS/MS		The identifier of the best (in terms of quality) MS/MS scans identifying the peptides of this protein, referenced against the msms table.
DeamNQ site IDs		Identifier(s) for site(s) associated with the protein group, which show(s) evidence of the modification, referenced against the appropriate modification site file.
OxiM site IDs		Identifier(s) for site(s) associated with the protein group, which show(s) evidence of the modification, referenced against the appropriate modification site file.
DeamNQ site positions		Positions of the sites in the leading protein of this group.
OxiM site positions		Positions of the sites in the leading protein of this group.
Taxonomy IDs		Taxonomy identifiers.



# All peptides

Name	Separator	Description
Raw file		Name of the raw file the spectral data was extracted from.
Type		The type of detection for the peptide. MULTI – A labeling multiplet was detected. ISO – An isotope pattern was detected.
Charge		The charge state of the peptide.
m/z		The mass divided by the charge of the charged peptide.
Mass		The mass of the neutral peptide ((m/z-proton) * charge).
Uncalibrated m/z		m/z before re-calibrations have been applied.
Number of data points		The number of data points (peak centroids) collected for this peptide feature.
Number of scans		The number of MS scans that the 3d peaks of this peptide feature are overlapping with.
Number of isotopic peaks		The number of isotopic peaks contained in this peptide feature.
PIF		Short for Parent Ion Fraction; indicates the fraction the target peak makes up of the total intensity in the inclusion window.
Mass fractional part		The values after the radix point (ie value - floor(value)).
Mass deficit		Empirically derived deviation measure to the next nearest integer scaled to center around 0. Can be used to visually detect contaminants in a plot setting Mass against this value.  $m*a+b - \text{round}(m*a+b)$ m: the peptide mass a: 0.99954 b: -0.04
Mass precision [ppm]		The precision of the mass detection of the peptide in parts-per-million.
Max intensity m/z 0		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Retention time		The retention time of the peak detected for the peptide measured in minutes.
Retention length		The total retention time width of the peak (last time point – first time point) in seconds.
Retention length (FWHM)		The full width at half maximum value retention time width of the peak in seconds.
Min scan number		The first scan number at which the peak was encountered.
Max scan number		The last scan number at which the peak was encountered.
Identified		When marked with '+' this particular MS/MS scan was identified as a peptide; when marked with '-' no identification was made.
Reverse		When marked with '+' this particular MS/MS scan was assigned to a decoy sequence.
MS/MS IDs		Unique identifier linking this identification to the MS/MS scans.
Sequence		The identified AA sequence of the peptide.
Length		The length of the sequence stored in the column "Sequence".
Modifications		Post-translational modifications contained within the sequence. When no modifications exist, this is set to 'unmodified'.  Note: This column only set when this MS/MS spectrum has been identified.
Modified sequence		Sequence representation of the peptide including location(s) of modified AAs.  Note: This column only set when this MS/MS spectrum has been identified.
Proteins		Identifiers of proteins this peptide is associated with.  Note: This column only set when this MS/MS spectrum has been identified.
Score		The score of the identification (higher is better).
PEP		The posterior error probability of the identification (smaller is better).
Intensity		Summed up eXtracted Ion Current (XIC) of all isotopic clusters associated with the identified AA sequence. In case of a labeled experiment this is the total intensity of all the isotopic patterns in the label cluster.
Intensities		Elution profile.
Isotope pattern		Isotope pattern.
MS/MS Count		The number of MS/MS spectra recorded for the peptide.

MSMS Scan Numbers		The scan numbers where the MS/MS spectra were recorded.
MSMS Isotope Indices		Indices of the isotopic peaks that the MS/MS spectra reside on. A value of 0 corresponds to the monoisotopic peak.

# MS scans

The msScans table contains information about the full scans, which can be used to verify data quality and generated useful statistics about the interaction between the samples and LC.

Name	Separator	Description
Raw file		The name of the RAW-file the mass spectral data originates from.
Scan number		The scan number (defined in the raw-file) at which the full scan was made.
Scan index		The consecutive index of this full scan.
Retention time		The retention time at which the full scan was made.
Cycle time		The total time (full scan including the tandem MS scans) this full scan has taken up.
Ion injection time		The total injection time that was required to capture the specified amount of ions. This value is limited by a maximum, which can be used to determine whether the time has maxed out (indicative of a bad acquisition).
Base peak intensity		The intensity of the most intense ion in the spectrum.
Total ion current		The total intensity acquired in the full scan.
MS/MS count		The number of tandem MS scans that were made based on this full scan (e.g. a top 10 method selects the top 10 most intense ions in the scan and fragments those).
Mass calibration		The applied mass correction in Th to the full scan.
Experiment		
Peak length		The average time between the start and the end of the peaks detected in the full scan.
Isotope pattern length		The average time between the start and the end of the isotope patterns detected in the full scan.
Multiplet length		The average time between the start and the end of the isotope patterns of the labeling multiplets detected in the full scan.
Peaks / s		The average number of peaks detected per second of chromatography.
Single peaks / s		The average number of single peaks detected per second of chromatography.
Isotope patterns / s		The average number of isotope patterns detected per second of chromatography.
Single isotope patterns / s		The average number of single isotope patterns detected per second of chromatography.
Multiplets / s		The average number of labeling multiplets detected per second of chromatography.
Identified multiplets / s		The percentage of labeling multiplets actually identified.
Multiplet identification rate [%]		The percentage of the detected labeling multiplets that were identified.
MS/MS / s		The average number of MS/MS events per second of chromatography.
Identified MS/MS / s		The average number of identified MS/MS events per second of chromatography.
MS/MS identification rate [%]		The percentage of tandem MS scans that were identified.
Intens Comp Factor		Taken from the Thermo RAW file.
CTCD Comp		Taken from the Thermo RAW file.
RawOvFtT		For Thermo Fisher only. TIC estimation done with the orbitrap cell.
AGC Fill		Taken from the Thermo RAW file.

# MZ range

<b>Name</b>	<b>Separator</b>	<b>Description</b>
Raw file		The name of the RAW-file the mass spectral data was derived from.
m/z		The mass-over-charge value.
Peaks / Da		The average number of peaks detected per Dalton.
Single peaks / Da		The average number of single peaks detected per Dalton.
Isotope patterns / Da		The average number of isotope patterns detected per Dalton.
Single isotope patterns / Da		The average number of single isotope patterns detected per Dalton.
SILAC pairs / Da		The average number of SILAC pairs detected per Dalton.
Identified SILAC pairs / Da		The percentage of SILAC pairs actually identified.
SILAC identification rate [%]		The percentage of the detected SILAC pairs that were identified.
MS/MS / Da		The average number of MS/MS events per Dalton.
Identified MS/MS / Da		The average number of identified MS/MS events per Dalton.
Identification rate [%]		The percentage of tandem MS scans that were identified.

# MS/MS scans

Name	Separator	Description
Raw file		Name of the RAW file the spectral MS/MS data was extracted from.
Scan number		RAW file derived scan number for the MS/MS spectrum.
Retention time		Time point along the elution profile at which the MS/MS data was recorded.
Ion injection time		The ion inject time for the MS/MS scan. This can be used to determine if this time equals to the maximum ion inject time, general indicative of a lower quality spectrum.
Total ion current		The total ion current of the MS/MS scan. For Thermo data this value is calculated by summing all the intensity values found in the mass spectral data, which is different from the Xcalibur reported TIC (Xcalibur TIC is about 25% of the value reported here).
Collision energy		The collision energy used for the fragmentation that resulted in this MS/MS scan.
Summations		For time of flight instruments only.
Base peak intensity		The intensity of the most intense ion in the spectrum.
Elapsed time		The time the MS/MS scan took to complete.
Identified		When marked with '+' this particular MS/MS scan was identified as a peptide; when marked with '-' no identification was made.
Matched		When marked with '+' this particular MS/MS scan was retrieved by matching between runs.
Reverse		When marked with '+' this particular MS/MS scan was assigned to a decoy sequence.
MS/MS IDs		Unique identifier linking this identification to the MS/MS scans.
Sequence		The identified AA sequence of the peptide.
Length		The length of the sequence stored in the column "Sequence".
Filtered peaks		Number of peaks after the 'top X per 100 Da' filtering.
m/z		Recalibrated m/z of the precursor ion.
Mass		Charge corrected mass of the precursor ion.
Charge		Charge state of the precursor ion.
Type		The type of precursor ion as identified by MaxQuant. ISO – isotopic cluster. PEAK – single peak. MULTI – labeling cluster.
Fragmentation		The type of fragmentation used to create the MS/MS spectrum. CID – Collision Induced Dissociation. HCD – High energy Collision induced Dissociation. ETD – Electron Transfer Dissociation.
Mass analyzer		The mass analyzer used to record the MS/MS spectrum. ITMS – Ion trap. FTMS – Fourier transform ICR or orbitrap cell. TOF – Time of flight.
Parent intensity fraction		The percentage the parent ion intensity makes up of the total intensity in the selection window.
Fraction of total spectrum		The percentage the parent ion intensity makes up of the total intensity of the whole MS spectrum.
Base peak fraction		The percentage the parent ion intensity in comparison to the highest peak in the MS spectrum.
Precursor full scan number		The full scan number where the precursor ion was selected for fragmentation.
Precursor intensity		The intensity of the precursor ion at the scan number it was selected.
Precursor apex fraction		The fraction the intensity of the precursor ion makes up of the peak (apex) intensity.
Precursor apex offset		How many full scans the precursor ion is offset from the peak (apex) position.
Precursor apex offset time		How much time the precursor ion is offset from the peak (apex) position.
Scan event number		This number indicates which MS/MS scan this one is in the consecutive order of the MS/MS scans that are acquired after an MS scan.
Modifications		Post-translational modifications contained within the sequence. When no modifications exist, this is set to 'unmodified'.  Note: This column only set when this MS/MS spectrum has been identified.

Modified sequence		Sequence representation of the peptide including location(s) of modified AAs.  Note: This column only set when this MS/MS spectrum has been identified.
Proteins		Identifiers of proteins this peptide is associated with.  Note: This column only set when this MS/MS spectrum has been identified.
Score		The score of the identification (higher is better).
PEP		The posterior error probability of the identification (smaller is better).
Experiment		
Reporter PIF		
Reporter fraction		
Intens Comp Factor		Taken from the Thermo RAW file.
CTCD Comp		Taken from the Thermo RAW file.
RawOvFtT		For Thermo Fisher only. TIC estimation done with the orbitrap cell.
AGC Fill		Taken from the Thermo RAW file.
Scan index		Consecutive index of the MS/MS spectrum.
MS scan index		Consecutive index of the MS spectrum prior to this MS/MS spectrum.
MS scan number		Scan number of the MS spectrum prior to this MS/MS spectrum.

# MS/MS

Name	Separator	Description
Raw file		The name of the RAW file the mass spectral data was read from.
Scan number		The RAW-file derived scan number of the MS/MS spectrum.
Scan index		The consecutive index of the MS/MS spectrum.
Sequence		The identified AA sequence of the peptide.
Length		The length of the sequence stored in the column "Sequence".
Missed cleavages		Number of missed enzymatic cleavages.
Modifications		Post-translational modifications contained within the identified peptide sequence.
Modified sequence		Sequence representation including the post-translational modifications (abbreviation of the modification in brackets before the modified AA). The sequence is always surrounded by underscore characters ('_').
DeamNQ Probabilities		Sequence representation of the peptide including PTM positioning probabilities ([0..1], where 1 is best match) for 'DeamNQ'.
OxiM Probabilities		Sequence representation of the peptide including PTM positioning probabilities ([0..1], where 1 is best match) for 'OxiM'.
DeamNQ Score diffs		
OxiM Score diffs		
AcetylNT		
DeamNQ		
OxiM		
Proteins		The identifiers of the proteins the identified peptide is associated with.
Charge		The charge state of the precursor ion.
Fragmentation		The type of fragmentation used to create the MS/MS spectrum. CID – Collision Induced Dissociation. HCD – High energy Collision induced Dissociation. ETD – Electron Transfer Dissociation.
Mass analyzer		The mass analyzer used to record the MS/MS spectrum. ITMS – Ion trap. FTMS – Fourier transform ICR or orbitrap cell. TOF – Time of flight.
Type		The type of precursor ion as identified by MaxQuant. ISO – isotopic cluster. PEAK – single peak. MULTI – labeling cluster.
Scan event number		
Isotope index		
m/z		The mass-over-charge of the precursor ion.
Mass		The charge corrected mass of the precursor ion.
Mass error [ppm]		Mass error of the recalibrated mass-over-charge value of the precursor ion in comparison to the predicted monoisotopic mass of the identified peptide sequence expressed in parts per million.
Mass error [Da]		Mass error of the recalibrated mass-over-charge value of the precursor ion in comparison to the predicted monoisotopic mass of the identified peptide sequence expressed in atomic mass units.
Simple mass error [ppm]		
Retention time		The uncalibrated retention time in minutes where the MS/MS spectrum has been acquired.
PEP		Posterior Error Probability of the identification. This value essentially operates as a p-value, where smaller is more significant.
Score		Andromeda score for the best associated MS/MS spectrum.
Delta score		Score difference to the second best identified peptide with a different amino acid sequence.
Score diff		Score difference to the second best positioning of modifications identified peptide with the same amino acid sequence.
Localization prob		
Combinatorics		Number of possible distributions of the modifications over the peptide sequence.
PIF		Short for Parent Ion Fraction; indicates the fraction the target peak makes up of the total intensity in the inclusion window.

Fraction of total spectrum		The percentage the parent ion intensity makes up of the total intensity of the whole spectrum.
Base peak fraction		The percentage the parent ion intensity in comparison to the highest peak in the MS spectrum.
Precursor full scan number		The full scan number where the precursor ion was selected for fragmentation.
Precursor Intensity		The intensity of the precursor ion at the scan number it was selected.
Precursor apex fraction		The fraction the intensity of the precursor ion makes up of the peak (apex) intensity.
Precursor apex offset		How many full scans the precursor ion is offset from the peak (apex) position.
Precursor apex offset time		How much time the precursor ion is offset from the peak (apex) position.
Matches		The species of the peaks in the fragmentation spectrum after TopN filtering.
Intensities		The intensities of the peaks in the fragmentation spectrum after TopN filtering.
Mass deviations [Da]		The mass deviation of each peak in the fragmentation spectrum in absolute mass units.
Mass deviations [ppm]		The mass deviation of each peak in the fragmentation spectrum in parts per million.
Masses		The masses-over-charge of the peaks in the fragmentation spectrum.
Number of matches		The number of peaks matching to the predicted fragmentation spectrum.
Intensity coverage		The fraction of intensity in the MS/MS spectrum that is annotated.
Peak coverage		The fraction of peaks in the MS/MS spectrum that are annotated.
Neutral loss level		How many neutral losses were applied to each fragment in the Andromeda scoring.
ETD identification type		For ETD spectra several different combinations of ion series are scored. Here the highest scoring combination is indicated
Reverse		When marked with '+', this particular peptide was found to be part of a protein derived from the reversed part of the decoy database. These should be removed for further data analysis.
All scores		
All sequences		
All modified sequences		
Reporter PIF		
Reporter fraction		
id		A unique (consecutive) identifier for each row in the msms table, which is used to cross-link the information in this file with the information stored in the other files.
Protein group IDs		The identifier of the protein-group this redundant peptide sequence is associated with, which can be used to look up the extended protein information in the file 'proteinGroups.txt'. As a single peptide can be linked to multiple proteins (e.g. in the case of razor-proteins), multiple id's can be stored here separated by a semicolon. As a protein can be identified by multiple peptides, the same id can be found in different rows.
Peptide ID		The identifier of the non-redundant peptide sequence.
Mod. peptide ID		Identifier of the associated modification summary stored in the file 'modificationSpecificPeptides.txt'.
Evidence ID		Identifier of the associated evidence stored in the file 'evidence.txt'.
DeamNQ site IDs		Identifier of the associated entry stored in the file 'DeamNQSites.txt'.
OxiM site IDs		Identifier of the associated entry stored in the file 'OxiMSites.txt'.