



Peptide Impurities

Customers often ask what other substances (impurities) are present in their peptide sample. This depends greatly on whether or not the sample was purified by reverse phase HPLC. The following table summarizes the difference between the two cases.

Impurities found in Non-Purified Peptides

- Deletion sequences
- Truncation sequences
- Incompletely deprotected sequences
- Sequences modified during cleavage (reattachment of protecting groups at other locations on the peptide)
- DTT (dithiothreitol)
- TFA (trifluoroacetic acid)
- Acetic acid
- Peptides that have undergone side reactions such as proline isomerization or isoaspartimide formation, etc.

(Note that the impurities are both peptides and non-peptides.)

Impurities found in Purified Peptides

- Deletion sequences
- Truncation sequences
- Incompletely deprotected sequences
- Sequences modified during cleavage (reattachment of protecting groups at other locations on the peptide)
- TFA (trifluoroacetic acid)
- Peptides that have undergone side reactions such as proline isomerization or aspartimide formation etc.

(Note that the impurities are mostly peptides with modified sequences, except for TFA salt.)