

Trypsin Gold, Mass Spectrometry Grade

Trypsin is a serine protease that specifically cleaves at the carboxylic side of lysine and arginine residues. The stringent specificity of trypsin is essential for protein identification. Native trypsin is subject to autolysis, generating pseudotrypsin, which exhibits a lowered specificity including chymotrypsin-like activity. Autolysis products, such as pseudotrypsin, present in a trypsin preparation, can result in additional peptide fragments that interfere with database analysis of the mass of fragments detected by mass spectrometry.

Trypsin Gold, Mass Spectrometry Grade, has been manufactured to provide maximum specificity. Lysine residues in the porcine trypsin have been modified by reductive methylation, yielding a highly active and stable molecule that is extremely resistant to autolytic digestion. The specificity of the purified trypsin is further improved by TPCK treatment, which inactivates chymotrypsin. The treated trypsin is then purified by affinity chromatography and lyophilized to yield Trypsin Gold, Mass Spectrometry Grade. Trypsin is often used for in-gel digestion. The digestion products are purified and concentrated, then analyzed by mass spectrometry to determine their molecular weights. Database searches can then be performed, using the mass of the peptides to identify the protein(s) resolved on the gel.

Each lot of quality-tested Trypsin Gold, Mass Spectrometry Grade, is qualified for use with in-gel digestion and mass spectrometric analysis.

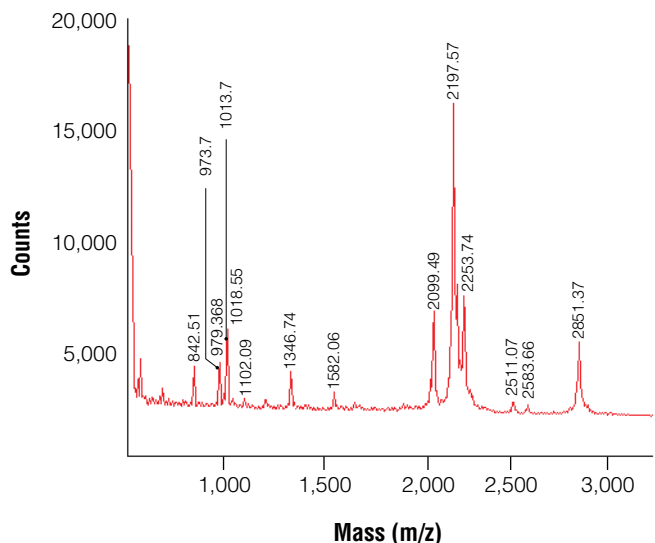


Figure 1. Spectrogram of bovine carbonic anhydrase II digested by Trypsin Gold Mass Spectrometry Grade.

Features

- **Pure:** Trypsin Gold is prepared by TPCK treatment followed by affinity purification
- **Application Qualified:** Each lot is qualified with mass spectrometry
- **Convenient:** Everything you need in one simple step
- **Good Value:** Stability ensured up to 5 freeze-thaw cycles, thus minimizing leftover reagents

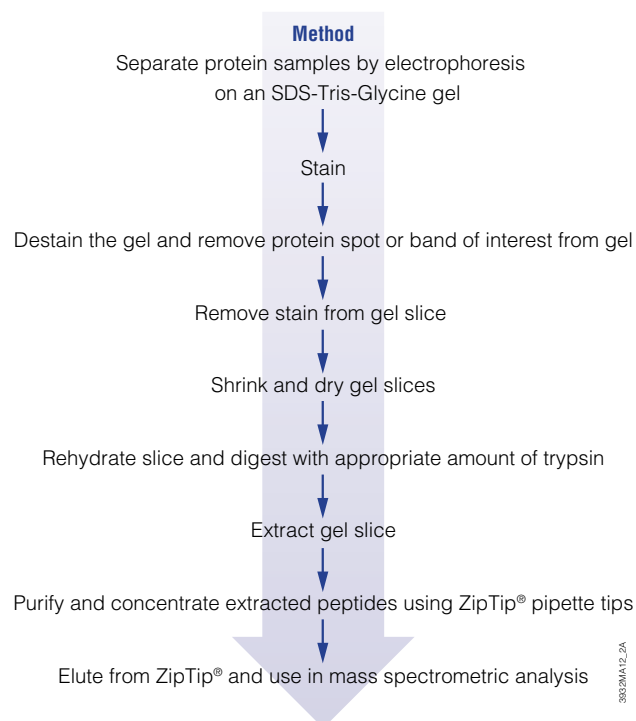


Figure 2. General procedure for in-gel tryptic protein digestions.

Ordering Information

Product	Size	Cat. #
Trypsin Gold, Mass Spectrometry Grade	100µg	V5280

Related Products

Product	Size	Cat. #
Broad Range Protein Molecular Weight Marker (5µl/lane)	100 lanes	V8491
ProteaseMAX™ Surfactant,	1mg	V2071
Trypsin Enhancer	5 × 1mg	V2072
Gel Drying Kit, 17.5 × 20cm capacity	1 kit	V7120
Gel Drying Film, 25.0 × 23cm (50 uses)	100 sheets	V7131

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Printed in USA Rev. 10/08
17010-DS-GN
Part #DS202

