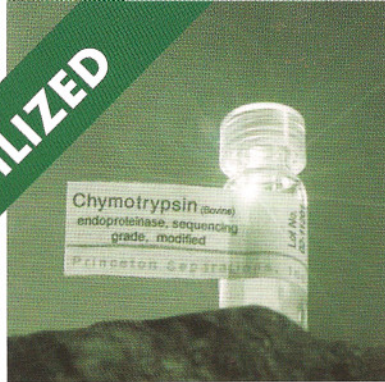


IMMOBILIZED



Sequencing Grade

Immobilized **CHYMOTRYPSIN** (Bovine)

Endoproteinase

■ Unique Immobilization Method

- Covalently bonded to solid support
- Use directly from the vial : No special preparation
- Fast digestion: Complete fragmentation of most proteins in 30 - 60 minutes
- Easy and simple removal of buffer and enzyme
- Eliminates cleaning of the digestion products

Princeton Separations

immobilized sequencing grade Chymotrypsin offers:

- Specificity
- Speed: digestion of most proteins in just 30-60 minutes
- Stability: no autolytic by-products
- Fast simple purification protocol: 2 minute centrifugation for fragment recovery
- Active with 1M to 8M urea



**PRINCETON
SEPARATIONS**

PO Box 300, Adelphia, New Jersey 07710

Tel: 800-223-0902 • Fax: 732-431-3768

e-mail: info@prinsep.com

<http://www.prinsep.com>

Meeting the Challenges of Proteomics!

Immobilized Chymotrypsin (Bovine), Sequencing Grade

Characteristics

Chymotrypsin is a serine endoproteinase which predominantly cleaves peptide bonds on the carboxy side of Tyrosine, Phenylalanine and Tryptophan. In addition Chymotrypsin also catalyses hydrolysis at the carboxy side of Leucine, Methionine, Alanine, Aspartic and Glutamic acids, although at a much lower rate. It is therefore recommended to always use the shortest digestion time possible.

Princeton Separations Sequencing Grade Immobilized Bovine Chymotrypsin, TLCK treated, is immobilized on **Silica** beads by covalent chemical bonds. The resulting gel is suspended in deionized water at 30% - 50% solids.

Applications

The Sequencing Grade, Immobilized Bovine Chymotrypsin is supplied as a Gel in aqueous suspension and can be used directly from the container without any prior preparations such as washing or reconstitution. The composition of the Immobilized Chymotrypsin Gel is adjusted so that 1 μ L of gel suspension is equivalent to 0.5 μ g of native Chymotrypsin. A reaction buffer, 1M Triethylamine acetate, pH 8.0 is provided. This buffer is volatile and can be removed easily by Speed-Vac centrifuge.

For accelerated digestion (30 - 60 minutes), a ratio of 1:10 enzyme to protein substrate is recommended. For routine digestion (4 hours - overnight) the recommended ratio is 1:25.

Storage

Store Immobilized Chymotrypsin vial and buffer vial at 2-8°C. DO NOT FREEZE. The product is stable for 6 months at 2-8°C.

Quality Control

Two assays are used for Quality Control: an amidase assay (using Benzoyl-Tyrosine-para-nitroaniline as substrate) and a protein digestion assay using casein as substrate. The activity against casein is routinely compared with unmodified Chymotrypsin. Furthermore, the enzyme protein digestion activity is also compared to Trypsin activity and a Trypsin Activity Equivalence is calculated. To check for enzyme specificity an array of synthetic peptides is used.

Denaturing Agents

For difficult to solubilize proteins, denaturing agents such as urea may be needed in the protein mix prior to the digestion process. The Princeton Separations Immobilized Chymotrypsin retains its full activity through the range 1M to 8M urea. We do not recommend the use of guanidine HCl when using Chymotrypsin in any concentration.

Ordering Information: Catalog Number EN-261

Immobilized Chymotrypsin (Bovine) endoproteinase,
Sequencing Grade 1 x 200 μ L gel + 1 mL Reaction Buffer



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