



Product Information

α -Chymotrypsinogen A from bovine pancreas

Product Number **C 4879**
Storage Temperature -0 °C

Product Description

CAS Number: 9035-75-0
Molecular Weight: 25.6 kDa
(amino acid sequence)¹
pI: 8.97²
Extinction coefficient: $E^{1\%} = 20.0$ (282 nm)¹

Serine proteases are synthesized in an inactive zymogen form, which requires limited proteolysis to produce the active enzyme. Chymotrypsinogen is such a zymogen. Chymotrypsinogen from bovine pancreas is a zymogen containing 5 disulfide bridges.³

Chymotrypsinogen A may be activated by trypsin and chymotrypsin (autolytic activation) to form α , β , γ , δ , and π chymotrypsin, depending upon the conditions of activation.^{3,4}

Chymotrypsin is a protease that will preferentially cleave peptides on the carboxyl side of aromatic amino acids including tryptophan, tyrosine, and phenylalanine. It will also hydrolyze peptides on the carboxyl side of leucine, methionine, and alanine.⁵

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This enzyme is soluble in 1 mM HCl (10 mg/ml), yielding a clear solution.

References

1. Wilcox, P. E., Chymotrypsinogens-Chymotrypsins. *Meth. Enzymol.*, **19**, 64-108 (1970).
2. Beeley, J. A., et al., Polyacrylamide gel isoelectric focusing of proteins: determination of isoelectric points using an antimony electrode. *Biochim. Biophys. Acta*, **285(2)**, 293-300 (1972).
3. Meloun, B., et al., Covalent structure of chymotrypsinogen A. *Biochim. Biophys. Acta*, **130(2)**, 543-546 (1966).
4. Laskowski, M., Chymotrypsinogens and Chymotrypsins. *Meth. Enzymol.*, **2**, 8-26 (1955).
5. *Enzymes of Molecular Biology*, Burrell, M.M., ed., Humana Press (Totowa, New Jersey), Vol. 16, 277-281 (1993).

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