

## Native Bovine $\alpha$ -Chymotrypsinogen A

Cat. No. NATE-0748

Lot. No. (See product label)

### Introduction

**Description** Chymotrypsinogen is a proteolytic enzyme and a precursor (zymogen) of the digestive enzyme chymotrypsin. It is a single polypeptide chain consisting of 245 amino acid residues. It is synthesized in the acinar cells of the pancreas and stored inside membrane-bounded granules at the apex of the acinar cell. The cell is then stimulated by either a hormonal signal or a nerve impulse and the contents of the granules spill into a duct leading into the duodenum.

**Applications** The enzyme has been used in the non-invasive determination of solid-state protein conformation using near infrared (NIR) spectroscopy. It has been used to study the partitioning of protein in polymer/polymer aqueous two-phase systems. The enzyme has also been used for self-interaction chromatography applications, to test the rapid measurement of protein osmotic second virial coefficients. In this technique, the protein is immobilized on chromatographic particles and its retention is measured using isocratic elution.

**Synonyms** 9035-75-0; Chymotrypsinogen;  $\alpha$ -Chymotrypsinogen A; Chymotrypsinogen A; Chymotrypsin

### Product Information

**Species** Bovine

**Source** Bovine Pancreas

**Form** essentially salt-free, lyophilized powder

**CAS No.** 9035-75-0

**Activity** > 40 units/mg solid

**Function** serine-type endopeptidase activity

**Unit Definition** After activation to Chymotrypsin, one unit will hydrolyze 1.0  $\mu$ mole of BTEE per min at pH 7.8 at 25°C.

### Storage and Shipping Information

**Storage** -20°C