

## Chymosin

### R1510851

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**Storage:** 2-8°C. Store in the dark. Desiccated.

#### Product Description

Chymosin (CAS No.9001-98-3) is derived from the *Kluyveromyces lactis* strain. It's a food grade enzyme which produced from submerged fermentation.

This product is mainly used in cheese processing, which can make milk clotting.

#### Action Principle

The clotting of milk by chymosin can be divided into two stages. First, the enzyme specific hydrolysis the peptide bond in Phe105-Met106 from k-casein polypeptide chain in milk to form stable para-k casein. Second, para-k casein,  $\alpha$ -casein and  $\beta$ -casein will precipitate to form clotting with the action of  $\text{Ca}^{2+}$ .

#### Product Feature

1. Appearance: White to light brown powder.
2. Enzyme activity:  $\geq 20000$  IMCU/g enzyme powder.
3. Enzyme activity definition(ISO 11815/ IDF157): Under the same chemical and physical conditions, the time required for the chymosin sample to produce visible clots in the standard milk which contain 0.5g/L calcium chloride (pH $\approx$ 6.5), compare with the standard enzyme powder with known clotting activity.
4. Product standard: GB1886.174-2024[National Food Safety Standard-Food Additives-Enzyme Preparations For Food Industry].

#### Application

Add 2.25-2.5g Chymosin in 1000L milk, stir fully, waiting for 25-30 minutes at 32 °C, then the milk will coagulate to meet the requirement of clotting.