

# Trypsin

**Source: Bovine pancreas**  
**Cell Culture Tested**

**Product Code: TC598**

## Product Description:

CAS No.: 9002-07-7

Trypsin is a serine protease derived from pancreas. It is a single chain polypeptide of 223 amino acid residues with substrate specificity based on positively charged Lysine and Arginine side chains. Trypsin predominantly cleaves peptide chains at the carboxyl side of Lysine and Arginine, except when either is followed by Proline.

Trypsin is produced from Trypsinogen by removal of a terminal hexapeptide to yield a single chain native form of trypsin called  $\beta$ -Trypsin. Subsequent autolysis of  $\beta$ -Trypsin results in  $\alpha$ -Trypsin having two peptide chains bound by disulphide bonds.

### Activity

The optimum pH for trypsin activity is 7.0-9.0 and optimum temperature is 37°C.

One BAEE unit will produce a  $\Delta A_{253nm}$  of 0.001 per minute with BAEE as substrate at pH 7.6 at 25°C in a reaction volume of 3.2ml (1cm light path).

One TAME unit hydrolyzes 1 $\mu$ mole of p-toluene-sulfonyl-L-arginine methyl ester (TAME) per minute at 25°C, pH 8.2 in the presence of 0.001M calcium ion.

One USP trypsin unit is the activity causing a change in absorbance of 0.003 per minute under the conditions specified.

Activity Conversion: 1 TAME unit = 19.2 USP or NF units= 57.5 BAEE Units.

## Quality Control:

### Appearance

White to yellow crystals or powder

### Solubility

33.3 mg soluble in 1 mL of water

### Activity (on dry basis)

NLT 2500 USP U/mg

### Unit definition

One BAEE unit will produce a  $\Delta A_{253}$  of 0.001 per min at pH 7.6 at 25°C using BAEE as substrate.  
Reaction volume = 3.2 ml (1 cm light path)

### Cell Culture Test

Passes

## Storage and Shelf Life:

Store at 2-8°C away from bright light.

Trypsin after reconstitution should be stored at -20°C.

Use before expiry date given on the product label.

### Disclaimer:

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