

Trypsin 1:250 powder porcine

Source: Porcine pancreas

Activity: 1000 - 1500 BAEE units/mg

Cell Culture Tested

Product Code: TC245

Product Description :

Molecular weight: 23.4 kDA

CAS No: 9002-07-7

EC No: 3.4.21.4

Extinction Co-efficient: $E^{1\%} = 14.3(280\text{nm})^2$

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 β -Trypsin. Subsequent autolysis of β -Trypsin results in α -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 $\Delta A_{253\text{nm}}$ 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 μ 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 off-white powder.

Solubility

Clear colorless solution at 2.5gm in 100ml of Hank's Balanced Salt Solution .

Loss on drying

NMT 5%

Assay

Trypsin: 1000-1500BAEE units/mg

Chymotrypsin: 70-140 BAEE units/mg

Porcine parvovirus

Not detected

Chymotrypsin assay

70.00 -140.00

Cell Culture Test

Passes

Storage and Shelf Life:

Trypsin powder is stable at 2-8°C for 36 months.

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

Autolysis of Trypsin may also be prevented by presence of Ca^{+2} ions.

Disclaimer :

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