

Product Datasheet

Neutral Protease Dispase (orb420144)

Description

Neutral Protease Dispace

Conjugation

Unconjugated

Target

npr

Preservatives

Preservative: None. Stabilizer: None. None

Form/Appearance

Lyophilized

Concentration

> 4 Units per mg

Storage

Stable at 2-8°C for 12 months. Aliquot and store at -20°C after reconstitution with water or commonly used balanced salt solutions or media. Stable over a wide pH range: 4.0-9.0, optimum pH 5.9-7.0. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. Dilute only prior to immediate use.

Note

For research use only

Application notes

Neutral protease (Dispase)

Purity

Neutral protease (Dispase) is purified and one unit releases one micromole of Folin positive amino acids, measured as tyrosine, at 37°C, pH 7.5, using casein as the substrate. The enzyme is known to contain 1g-atom of zinc per g-mol of purified enzyme. If this zinc component is removed by chelating agents such as EDTA or EGTA, an inactive apoenzyme is obtained. Calcium has been detected in the purified protein and is believed to play a role in maintaining the structure and configuration, and preventing autolysis. Neutral protease is a non-specific metalloprotease. It cleaves fibronectin, collagen IV, and to a lesser extent collagen I, but it does not cleave collagen V or laminin. It hydrolyzes N-terminal peptide bonds of non-polar amino acid residues and may preferentially attack denatured and intercellular proteins with exposed hydrophobic amino acid residues. It is believed to bind one zinc ion and four calcium ions per subunit. Unlike other *Bacillus* species that produce neutral, alkaline, or a mixture of both proteases, *Paenibacillus polymyxa* is one of three species that produces only a neutral protease.

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Expiration Date

12 months from date of receipt