

Bioactive

Dispase (*B. polymyxa*)

Catalog # P5318

Size 1 g

Specification

Product Description	Lyophilized. Partially purified. Animal Free/AF. Dispase (<i>B. polymyxa</i>) is a non-mammalian animal origin free (AOF) metallo, neutral protease. The mild proteolytic action makes the enzyme especially suitable for the preparation of primary cells and secondary (subcultivation) cell culture, since it is gentle on cell membranes. This protease is also used as a secondary enzyme in cell isolation and tissue dissociation applications, commonly used with collagenase.
Biological function	Dispase is a mild protease which cleaves fibronectin, collagen IV, and to a lesser extent collagen I.
Host	Bacteria
Theoretical MW (kDa)	36
Specificity	Non-specific cleavage of peptide bonds containing leucine and phenylalanine.
pH Optimum	Stable over a wide pH range: 4.0-9.0, optimum pH 5.9-7.0.
Activators	Divalent cations including Ca^{2+} , Mg^{2+} , Mn^{2+} , and Fe^{2+}
Inhibitors	EDTA (1 mM), EGTA, 1-10-phenanthroline and heavy metals
Form	Lyophilized
Preparation Method	Native protein purified from <i>Bacillus polymyxa</i> .
Activity	≥ 0.1 units per mg dry weight. One Unit releases one micromole of Folin positive amino acids, measured as tyrosine, at 37°C, pH 7.5, using casein as the substrate.
Recommend Usage	Neutral Protease (Dispase) Assay; Tissue disaggregation and subcultivation; Prevention of unwanted cell clumping; Preparation of cells for culture; Separation of intact epidermis from dermis and intact epithelial sheet in culture from the substratum; Harvest and transfer of normal, diploid cells and cell lines; Gentle and intact detachment of epidermal cells.
Storage Instruction	Store at 4°C. Aliquot and store at -20°C after reconstitution with water or commonly used balanced salt solutions or media. Aliquot to avoid repeated freezing and thawing.

Applications

- Enzyme Activity