

Overview about Papain products

Papain, purified from *Carica papaya* latex has wide specificity, and it will degrade most protein substrates more extensively than the pancreatic proteases. For tissue dissociation applications papain has proved less damaging and more effective than other proteases. Huettnner and Baughman [J. Neuroscience, 6, 3044 (1986)] described a method using papain to obtain high yields of viable, morphologically intact cortical neurons from postnatal rats which is the basis of our Papain Dissociation System, Code: PDS.

Product	Activity/ Components	Code	Size	Catalog No.
Suspension, Twice Crystallized 0.22µm Filtered A suspension in 0.05M sodium acetate, pH 4.5. It is recommended that the enzyme be fully activated before use in a solution containing 1.1mM EDTA, 0.067mM mercaptoethanol and 5.5mM cysteine-HCl for 30 minutes.	Activates to ≥ 20 Units per mg protein	PAP	25 mg 100 mg 1 g Bulk	LS003124 LS003126 LS003127 on request
Lyophilized Powder Prepared from twice crystallized suspension containing sodium acetate. It is recommended that the enzyme be fully activated before use in a solution containing 1.1mM EDTA, 0.067mM mercaptoethanol and 5.5mM cysteine-HCl for 30 minutes.	Activates to ≥ 15 Units per mg protein	PAPL	25 mg 100 mg 1 g Bulk	LS003118 LS003119 LS003120 on request
Papain Vial, PDS Kit Component Papain containing L-cysteine and EDTA, five single use 100 unit vials per package. This material is 0.22µm membrane filtered and lyophilized in autoclaved vials. A vial reconstituted with five mls of EBSS (vial 1) yields a solution at 20 units of papain per ml in one millimolar L-cysteine with 0.5mm EDTA. Brief incubation is needed to insure full solubility and activity.	Activates to ≥ 100 Units per vial	PAP2	1 vi 5 vi	LK003176 LK003178
Papain Dissociation System (PDS) – complete kit for the convenient isolation of single, morphologically intact cells based on published techniques for gentle dissociation of fetal and postnatal central nervous system (CNS) tissue.	<ul style="list-style-type: none"> • Earle's Balanced Salt Solution (EBSS), sterile • Papain (PAP2) • Deoxyribonuclease I (DNase) (D2) • Ovomuroid protease inhibitor with bovine serum albumin (OI-BSA) 	PDS	1 Kit 3 Kits	LK003150 LK003153
Papain Dissociation System (PDS2) (as PDS but without buffer/EBSS)	<ul style="list-style-type: none"> • Papain (PAP2) • Deoxyribonuclease I (DNase) (D2) • Ovomuroid protease inhibitor with bovine serum albumin (OI-BSA) 	PDS2	1 Kit 3 Kit	LK003160 LK003163



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