

## Dissociation Reagents

### Papain

For digestion of the extracellular matrix of cartilage

Catalog # 07465  
07466

25 mg  
100 mg



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## Product Description

Papain is a cysteine protease consisting of a single polypeptide containing three disulfide bridges. Native crystalline papain is unreactive until acted upon by mild reducing agents, e.g., cysteine, sulfide, or sulfite, and therefore likely exists as a zymogen. Papain has a wide specificity with a preference towards arginine, lysine, and phenylalanine. This enzyme degrades protein substrates such as the intercellular matrices of cartilage more extensively than pancreatic proteases and is typically less damaging and more effective than other proteases for tissue dissociation applications (Huetner & Baugham; Lam) and has also been used for the dissociation of neural tissue (Fasano et al.).

## Product Information

Alternative Names:	Papainase; Papaya peptidase I
Format:	Lyophilized powder
Storage:	Store at 2 - 8°C.
Stability:	Stable as supplied for 6 months from date of receipt.
Reconstitution:	Dissociation reagents can be reconstituted in a balanced salt solution or buffer of choice.
Molecular Weight:	23.4 kDa
CAS Number:	9001-73-4
Optimum pH:	6.0 - 7.0
Cleavage Site:	-X- † -Y- : X = preference for Arg, Lys, and Phe, otherwise nonspecific; Y = nonspecific

## Specifications

Source:	Carica papaya latex
Activity:	Activates to at least 15 units/mg protein (refer to Certificate of Analysis for lot-specific % protein). See Notes for further information.

## Related Products

For a complete list of dissociation reagents, as well as related products available from STEMCELL Technologies, visit [www.stemcell.com](http://www.stemcell.com) or contact us at [techsupport@stemcell.com](mailto:techsupport@stemcell.com).

## Notes

### ACTIVITY UNITS

1 unit hydrolyzes 1  $\mu$ mol of N $\alpha$ -benzoyl-L-arginine ethyl ester (BEAA)/minute at 25°C, pH 6.2, after activation in solution containing 1.1 mM EDTA, 0.067 mM mercaptoethanol, and 5.5 mM cysteine-HCl for 30 minutes.

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