Dissociation Reagents

Collagenase Type IV

For digestion of native collagen fibrils

Catalog #	07426	100 mg
	07427	1 g
	100-0680	5 g

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Scientists Helping Scientists™ | WWW.STEMCELL.COM
TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
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Product Description

Collagenase is a protease consisting of a single polypeptide chain approximately 1000 amino acid residues in length. Collagenase is capable of digesting native collagen fibrils commonly found in connective tissues and therefore is frequently used for tissue dissociation. Collagenase preparations contain the activity of several proteases, including collagenase, caseinase, clostripain, and trypsin (Kessler & Yaron). Collagenase Type IV contains low levels of tryptic activity and is frequently used for the dissociation of pancreatic islets (Taguchi et al.) and for applications where maintenance of receptor integrity is required.

Product Information

Alternative Names:	Clostridium histolyticum collagenase; Collagenase 4; Collagenase Type 4; Collagenase IV
Format:	Lyophilized powder
Storage:	Store at 2 - 8°C.
Stability:	Stable as supplied for 12 months from date of receipt.
Reconstitution:	Dissociation reagents can be reconstituted in a balanced salt solution or buffer of choice.
Molecular Weight:	68 - 130 kDa
CAS Number:	9001-12-1
Optimum pH:	6.3 - 8.5
Cleavage Site:	-Pro-X- † -Gly-Pro-Y- : X = neutral Y = nonspecific

Please refer to the Safety Data Sheet (SDS) for hazard information.

Specifications

Source:	Clostridium histolyticum
Activity:	Collagenase: ≥ 160 CDU/mg dry weight (mgdw); Caseinase: ≥ 100 u/mgdw; Clostripain: ≤ 3.0 u/mgdw; Trypsin: ≤ 0.1 u/mgdw. 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 or contact us at techsupport@stemcell.com.

Notes

ACTIVITY UNITS
Collagenase: 1 collagenase digestion unit (CDU) equals 1 µmol of L-leucine equivalents released from collagen in 5 hours at 37°C, pH 7.5.
Caseinase: 1 unit equals 1 µmol of L-leucine equivalents released from 25 mg vitamin-free casein in 5 hours at 37°C, pH 7.5; measures non-specific proteolytic activity.
Clostripain: 1 unit hydrolyzes 1 µmol of Nα- benzoyl-L-arginine ethyl ester (BAEE)/minute at 25°C at pH 7.6, after activation in 2.5 mM dithiothreitol (DTT).
Trypsin: 1 unit hydrolyzes 1 µmol of BAEE/minute at 25°C at pH 7.6.

References

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