

Dissociation Reagents

Collagenase C, ACF

Animal component-free collagenase for the digestion of native collagen fibrils

Catalog # 07442
07443

100 mg
1 g



Scientists Helping Scientists™ | WWW.STEMCELL.COM

TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

FOR GLOBAL CONTACT DETAILS VISIT OUR WEBSITE

Product Description

Collagenase C, Animal Component-Free (ACF) is obtained from cultures free of animal-derived materials. 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 C, ACF contains low levels of tryptic activity, similar to Collagenase Type IV, and is intended for use in applications where it is necessary to prevent the introduction of potential animal-derived pathogens.

Product Information

Alternative Names:	Clostridium histolyticum collagenase; Collagenase C
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: ≥ 200 CDU/mg dry weight (mgdw); Caseinase: ≥ 150 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 2°C at pH 7.6.

References

- Kessler E & Yaron A. (1973) A novel aminopeptidase from clostridium histolyticum. *Biochem Biophys Res Commun* 50(2): 405–12.
- Pšenička M et al. (2015) Isolation and transplantation of sturgeon early-stage germ cells. *Theriogenology* 83(6): 1085–92.
- Solleti SK et al. (2016) Serpine2 deficiency results in lung lymphocyte accumulation and bronchus-associated lymphoid tissue formation. *FASEB J* 30(7): 2615–26.
- Vasquez YM et al. (2015) FOXO1 is required for binding of PR on IRF4, novel transcriptional regulator of endometrial stromal decidualization. *Mol Endocrinol* 29(3): 421–33.
- Wade RJ et al. (2015) Protease-degradable electrospun fibrous hydrogels. *Nat Commun* 6: 6639.

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2021 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.