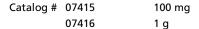
### Collagenase Type I

# Dissociation Reagents

For digestion of native collagen fibrils

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# **Product Description**

Collagenase is a protease consisting of a single polypeptide chain approximately 1,000 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 Type I contains the activity of several proteases, including collagenase, caseinase, clostripain, and trypsin. Collagenase Type I has been used for the digestion of human tissues such as intestine (Barthel et al.), mammary glands (Huss & Kratz), and prostate (Le et al.), as well as specific cell types such as endothelial cells (Ganguly et al.) and dorsal root ganglion cells (Dib-Hajj et al.).

## **Product Information**

Alternative Names: Clostridiopeptidase A; Clostridium histolyticum collagenase; Collagenase 1; Collagenase Type 1;

Collagenase I

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

# **Specifications**

Source: Clostridium histolyticum

 $\textbf{Activity:} \hspace{1cm} \textbf{Collagenase:} \geq 125 \hspace{1cm} \textbf{CDU/mg dry weight (mgdw); Caseinase:} \geq 200 \hspace{1cm} \textbf{u/mgdw; Clostripain:} \leq 4.0 \hspace{1cm} \textbf{u/mgdw;}$ 

Trypsin: ≤ 0.5 u/mgdw. See Notes for further information.

# **Dissociation Reagents**

#### Collagenase Type I



# Related Products

For a complete list of dissociation reagents, as well as related products available from STEMCELL Technologies, please visit our website at 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  $\mu$ mol of N $\alpha$ -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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