Datasheet

Collagenase Type II

Enzyme for Cell Dissociation

Product	Description	Catalogue-No.	Size
Collagenase II	**Collagen cleaving protease from Chlostridum histolyticum**	**LS0004174 LS0004176**	**100 mg 1 g**

Product description

Collagenase is a neutral protease produced in Chlostridium histolyticum, which major substrate is collagen. Collagen is the major component of extracellular binding tissue.
Collagen Collagen forms triple helical fibrils consisting of tropocollagen molecules, which combine lateraly creating an axially repeating periodicity.
The enzyme plays an important role in tissue metabolism and is produced by specific cells involved in repairs and remodelling processes. Mammalian collagenases split collagen in its native triple helical conformation at a specific site. The resulting fragments tend to uncoil into random coil polypeptides (gelatine).
Collagenase has found widespread application in the isolation of specific cell types from attendant connective tissue.
Particular enzymatic activities have been correlated with specific tissues, thus having formal types established. The collagenase type II contains a greater clostripain activity. It is generally use for heart, bone, muscle, thyroid, cartilage, and liver cells.

Solubility and storage conditions

Storage: 2-8 °C (Prepared Collagenase Solution store at - 20 °C)
Stability: 2 years from date of production
Size: 100 mg, 1 g
pH-Optimum: pH 6,8 – 8,8
Activators: Ca^{2+}, Mg^{2+}
Inhibitors: EGTA, β-Mercaptoethanol, red. Glutathion

Suitability

Enzymatic solution for the dissociation and disaggregation of anchorage-dependent mammalian cells and tissues, like heart, bone, muscle, thyroid, cartilage, and liver cells.

Instructions for Use

1. The Collagenase Type II should be reconstituted in HBSS (Hank's balanced salt solution) to a concentration of 1 mg/ml and then sterile-filtered with a 0.2 µm filter.
2. Coat small particles of tissue or a cell layer with collagenase solution and incubate it at 37 °C.
3. Check the successful detachment of the cells with a microscope.
4. Cell suspension should be centrifuged immediately after detachment and washed two times with buffer, to rinse of all the residing collagenase, because fresh media can't stop the enzyme activity
5. Resuspend cells in fresh media and cultivate.

Technical support

For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com) or phone +49-8543-601630.

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