



Technical Datasheet

Collagenase-Hyaluronidase Solution 10X

Product Code: TCL118

Product Description:

Collagenase-hyaluronidase solution is formulated for optimal tissue dissociation and primary cell isolation. Collagenase has the unique ability to degrade the triple helical native collagen fibrils found in connective tissue. However, it has limited activity against non-collagen proteins and other macromolecules found in the ECM.

Hyaluronidase catalyzes the random hydrolysis of 1,4-linkages between 2-acetamido-2-deoxy- α -D-glucose and D-glucose residues. These bonds are found in hyaluronic acid and chondroitin sulfate which are the chief components of the ECM. Due to this ability, hyaluronidase is used as a supplement to proteases such as collagenase for tissue dissociation.

TCL118 Collagenase-Hyaluronidase solution 10X contains 3000U/ml collagenase and 1000U/ml hyaluronidase in Dulbecco's Modified Eagle's Medium (low glucose). The combination of the two enzymes ensures maximum yield of functionally viable, dissociated cells.

Directions:

- 1. TCL118 is provided as a 10X stock solution.
- 2. Thaw the solution at room temperature or overnight at 2-8°C.
- 3. Dilute 1 part of the solution with 9 parts of the medium used for culturing the isolated primary cells. Using undiluted enzyme may result in reduced cell viability.

Dissociation of minced tissues -

1. Wash the tissue in sterile PBS or other balanced salt solution. Remove undesirable tissues like fat or necrotic material and cut the tissue with a scalpel or scissors.

- 2. Add appropriate quantity of the diluted (1X) enzyme solution to the tissue.
- 3. Incubate at 37°C on a rotary shaker until disaggregation is complete.

Quality Control:

Appearance

Reddish brown coloured clear solution

pН

7.40 - 8.00

Osmolality in mOsm/Kg H2O

330.00 - 370.00

Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

Storage and Shelf Life:

Shelf life of the product is 24 months.

Upon receipt store at -30°C to -10°C in a freezer that is not self-defrosting.

Repeated freezing and thawing reduces enzymatic activity and should be avoided. Once thawed, the solution can be aliquoted in smaller volumes and frozen for future use. Use before expiry date given on the product label.

Disclaimer: Revision: 05/2025

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