

Product Information Sheet



PRODUCT DESCRIPTION

Tropoelastin is a 60kDa extracellular matrix protein and is the soluble precursor to elastin.¹

Elastin is a key mammalian extracellular matrix protein that is critical to the elasticity, compliance, and resilience of a range of tissues including the vasculature, skin, and lung. In addition to providing mechanical integrity to tissues, elastin also has critical functions in the regulation of cell behaviour.²

TROPOELASTIN CHARACTERIZATION

Identity/Purity: The identity and purity of tropoelastin is qualitatively evaluated using SDS-PAGE, RP-HPLC and SEC.

Quantity: Tropoelastin is supplied as a lyophilized powder in a vial containing 5-10 mg.

Endotoxin: Endotoxin level is <0.75 EU/mg, as assayed by Limulus Amoebocyte Lysate assay.

PRECAUTIONS AND DISCLAIMER

This product is for R&D use only and is not intended for human or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

STABILITY AND STORAGE

Elastagen Recombinant Human Tropoelastin is shipped ambient and should be stored at $<-10^{\circ}\text{C}$ on arrival.

Reconstituted tropoelastin should be stored at $2-8^{\circ}\text{C}$ for up to 1 month or aliquot and stored at -80°C for long term storage.

HANDELLING INSTRUCTIONS

Note: It is recommended that all operations are performed in a laminar flow hood and/or employing aseptic techniques.

1. Add 1 ml of sterile solutions (recommended solutions include MQW, PBS or 0.25% Acetic Acid solution) to the tropoelastin containing vial.
2. Place the contents of the vial at $2-8^{\circ}\text{C}$ for 2-18 hours until the material is completely solubilised. Do not vortex or mix the solution.
3. Concentration of the solution can be determined using UV analysis.
(1 AU @ 280 nm = 3.2 mg/mL)
4. Further dilute to desired concentration using the sterile solution. A typical working concentration for cell culture may range from 1 to 50 $\mu\text{g}/\text{ml}$.

REFERENCES

1. Jensen SA et al Domain 26 of Tropoelastin Plays a Dominant Role in Association by Coacervation, *The Journal of Biological Chemistry*; 275 (37): 28449-28454, 2000
2. Wise SG et al Engineered Tropoelastin And Elastin-Based Biomaterials, *Advances in Protein Chemistry and Structural Biology*, Vol. 78: 2009
3. Holst JS et al. Substrate elasticity provides mechanical signals for the expansion of hemopoietic stem and progenitor cells, *Nature Biotechnology*; 28(10): 1123-1130, 2010.

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