

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived human Dermato pontin protein
Gln19-Val201, with a C-terminal 6-His tag
Accession # AAH33736

N-terminal Sequence Analysis No results obtained: Gln19 predicted

Predicted Molecular Mass 22.8 kDa

SPECIFICATIONS

SDS-PAGE 23 kDa, reducing conditions

Activity Measured by its ability to modulate collagen fibrillogenesis.
20 µg/mL of rhDermato pontin can significantly enhance the rate collagen fibrillogenesis.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL in sterile PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Dermato pontin, also known as TRAMP (tyrosine rich acidic matrix protein), is a widely expressed noncollagenous protein component of the extracellular matrix (1, 2). Mature human Dermato pontin shares 96%, 92%, and 92% amino acid sequence identity with bovine, mouse, and rat Dermato pontin, respectively. It is a 22 kDa molecule that is tyrosine sulfated but not glycosylated (3, 4). Dermato pontin contains three disulfide bonded loop structures that enclose conserved hexapeptide motifs (5). It accelerates collagen fibril formation *in vitro*, and Dermato pontin deficient mice exhibit altered collagen matrix deposition and organization (6-8). Dermato pontin is down-regulated in fibrotic growths such as leiomyoma and scar tissue (9, 10). It binds both TGF-β and the proteoglycan decorin, interactions that can increase the bioavailability of TGF-β (11, 12). Dermato pontin promotes bone mineralization under the control of the vitamin D receptor and inhibits BMP-2 effects on osteoblast precursors (13, 14).

References:

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