

Dermatopontin (S-14): sc-160280

BACKGROUND

Dermatopontin, also known as TRAMP or DPT, is a 201 amino acid secreted protein belonging to the Dermatopontin family. Expressed in fibroblasts, heart, skeletal muscle, brain and pancreas, Dermatopontin may participate in cell-matrix interactions and matrix assembly by possibly serving as a communication link between the cell surface of dermal fibroblasts and their extracellular matrix environment. Dermatopontin may also play a critical role in the elasticity of skin and collagen accumulation attributed to collagen fibrillogenesis. Implicated in accelerating collagen fibril formation, Dermatopontin stabilizes collagen fibrils against low-temperature dissociation. Induced by TGF β 1 and inhibited by IL-4, Dermatopontin may be involved in the pathogenesis and growth of prostate cancer. Dermatopontin enhances the activity of TGF β 1 and inhibits cell proliferation.

REFERENCES

1. Kuroda, K., Okamoto, O. and Shinkai, H. 1999. Dermatopontin expression is decreased in hypertrophic scar and systemic sclerosis skin fibroblasts and is regulated by transforming growth factor- β 1, interleukin-4, and matrix collagen. *J. Invest. Dermatol.* 112: 706-710.
2. Takeda, U., Utani, A., Wu, J., Adachi, E., Koseki, H., Taniguchi, M., Matsumoto, T., Ohashi, T., Sato, M. and Shinkai, H. 2002. Targeted disruption of Dermatopontin causes abnormal collagen fibrillogenesis. *J. Invest. Dermatol.* 119: 678-683.
3. Catherino, W.H., Leppert, P.C., Stenmark, M.H., Payson, M., Potlog-Nahari, C., Nieman, L.K. and Segars, J.H. 2004. Reduced dermatopontin expression is a molecular link between uterine leiomyomas and keloids. *Genes Chromosomes Cancer* 40: 204-217.
4. Okamoto, O. and Fujiwara, S. 2006. Dermatopontin, a novel player in the biology of the extracellular matrix. *Connect. Tissue Res.* 47: 177-189.
5. Cooper, L.J., Bentley, A.J., Nieduszynski, I.A., Talabani, S., Thomson, A., Utani, A., Shinkai, H., Fullwood, N.J. and Brown, G.M. 2006. The role of Dermatopontin in the stromal organization of the cornea. *Invest. Ophthalmol. Vis. Sci.* 47: 3303-3310.

CHROMOSOMAL LOCATION

Genetic locus: DPT (human) mapping to 1q24.2; Dpt (mouse) mapping to 1 H2.2.

SOURCE

Dermatopontin (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Dermatopontin of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160280 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Dermatopontin (S-14) is recommended for detection of Dermatopontin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

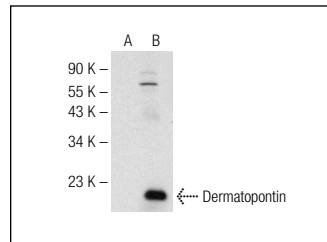
Dermatopontin (S-14) is also recommended for detection of Dermatopontin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Dermatopontin siRNA (h): sc-88148, Dermatopontin siRNA (m): sc-143012, Dermatopontin shRNA Plasmid (h): sc-88148-SH, Dermatopontin shRNA Plasmid (m): sc-143012-SH, Dermatopontin shRNA (h) Lentiviral Particles: sc-88148-V and Dermatopontin shRNA (m) Lentiviral Particles: sc-143012-V.

Molecular Weight of Dermatopontin: 22 kDa.

Positive Controls: Dermatopontin (h): 293T Lysate: sc-115088.

DATA



Dermatopontin (S-14): sc-160280. Western blot analysis of Dermatopontin expression in non-transfected: sc-117752 (A) and human Dermatopontin transfected: sc-115088 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Welham, N.V., Chang, Z., Smith, L.M. and Frey, B.L. 2013. Proteomic analysis of a decellularized human vocal fold mucosa scaffold using 2D electrophoresis and high-resolution mass spectrometry. *Biomaterials* 34: 669-676.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **Dermatopontin (F-4): sc-376863**, our highly recommended monoclonal alternative to Dermatopontin (S-14).