

Keratocan (H-50): sc-66941

BACKGROUND

Small leucine-rich proteoglycans (SLRPs) such as Decorin, Biglycan, Fibromodulin, Keratocan, Lumican and Osteoglycin mediate extracellular matrix organization and are binding partners of TGF β . The Decorin core protein binds to growth factors, intercellular matrix molecules such as Fibronectin and Thrombospondin, and to the Decorin endocytosis receptor. Fibromodulin is a collagen-binding keratan sulphate proteoglycan that influences adhesion processes of connective tissue and plays a role in fibrillogenesis by regulating collagen fibril spacing and thickness. Keratocan (KTN) develops corneal transparency and maintains the stromal matrix structure. Keratocan is a secreted protein in the extracellular matrix that binds to keratan sulfate chains. Keratocan is mainly detected in the cornea, but can also be expressed in trachea, intestine, ovary, lung and skeletal muscle. Defects in the gene encoding for Keratocan can cause cornea plana 2 (CNA2), an autosomal recessive disorder where the forward convex curvature of the cornea is flattened.

CHROMOSOMAL LOCATION

Genetic locus: KERA (human) mapping to 12q21.33; Kera (mouse) mapping to 10 C3.

SOURCE

Keratocan (H-50) is a rabbit polyclonal antibody raised against amino acids 251-300 mapping near the C-terminus of Keratocan 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.

STORAGE

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

APPLICATIONS

Keratocan (H-50) is recommended for detection of Keratocan 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Keratocan (H-50) is also recommended for detection of Keratocan in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Keratocan siRNA (h): sc-44701, Keratocan siRNA (m): sc-44702, Keratocan shRNA Plasmid (h): sc-44701-SH, Keratocan shRNA Plasmid (m): sc-44702-SH, Keratocan shRNA (h) Lentiviral Particles: sc-44701-V and Keratocan shRNA (m) Lentiviral Particles: sc-44702-V.

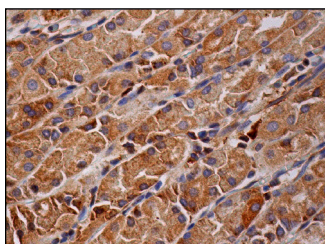
Molecular Weight of Keratocan: 50 kDa.

Positive Controls: JEG-3 whole cell lysate: sc-364255.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Keratocan (H-50): sc-66941. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Igwe, J.C., et al. 2011. Keratocan is expressed by osteoblasts and can modulate osteogenic differentiation. *Connect. Tissue Res.* 52: 401-407.
2. Lu, J.M., et al. 2012. Murine corneal stroma cells inhibit LPS-induced dendritic cell maturation partially through TGF- β 2 secretion *in vitro*. *Mol. Vis.* 18: 2255-2264.
3. Ricardo M, G., et al. 2013. Bioactive films produced from self-assembling peptide amphiphiles as versatile substrates for tuning cell adhesion and tissue architecture in serum-free conditions. *J. Mater. Chem. B* 1: 6157-6169.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.