

β ig-h3 (H-58): sc-28660

BACKGROUND

Human β ig-h3 ($\alpha 3/\beta 1$ integrin, keratoepithelin) is a secreted, 683 amino acid, transforming growth factor-inducible, extracellular matrix adhesion molecule. β ig-h3 contains an amino-terminal secretory sequence and a carboxy-terminal Integrin-binding Arg-Gly-Asp (RGD) domain. β ig-h3 is implicated in mechanisms leading to proliferation, differentiation, wound healing and morphogenesis of corneal tissues. Mutations in the β ig-h3 gene, along with elevated levels of β ig-h3 protein in human corneas, occurs with granular dystrophy (GCD) and other inherited disorders of the cornea. β ig-h3 is also a structural component of the human bladder extracellular matrix and may influence nuclear regulatory or structural functions.

REFERENCES

- Skonier, J., et al. 1992. cDNA cloning and sequence analysis of β ig-h3, a novel gene induced in a human adenocarcinoma cell line after treatment with transforming growth factor- β . *DNA Cell Biol.* 11: 511-522.
- LeBaron, R.G., et al. 1995. β ig-h3, a novel secretory protein inducible by transforming growth factor- β , is present in normal skin and promotes the adhesion and spreading of dermal fibroblasts *in vitro*. *J. Invest. Dermatol.* 104: 844-849.

CHROMOSOMAL LOCATION

Genetic locus: TGFBI (human) mapping to 5q31.1; Tgfb1 (mouse) mapping to 13 B1.

SOURCE

β ig-h3 (H-58) is a rabbit polyclonal antibody raised against amino acids 626-683 mapping at the C-terminus of β ig-h3 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.

APPLICATIONS

β ig-h3 (H-58) is recommended for detection of β ig-h3 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).

β ig-h3 (H-58) is also recommended for detection of β ig-h3 in additional species, including bovine.

Suitable for use as control antibody for β ig-h3 siRNA (h): sc-43123, β ig-h3 siRNA (m): sc-43124, β ig-h3 shRNA Plasmid (h): sc-43123-SH, β ig-h3 shRNA Plasmid (m): sc-43124-SH, β ig-h3 shRNA (h) Lentiviral Particles: sc-43123-V and β ig-h3 shRNA (m) Lentiviral Particles: sc-43124-V.

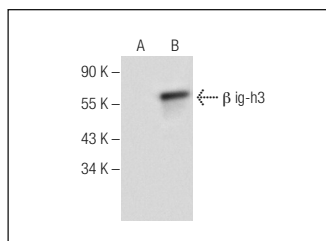
Molecular Weight of β ig-h3: 68 kDa.

Postive Controls: Y79 cell lysate: sc-2240 or β ig-h3 (h): 293T Lysate: sc-176290.

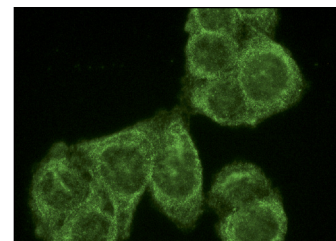
RECOMMENDED SECONDARY REAGENTS

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.

DATA



β ig-h3 (H-58): sc-28660. Western blot analysis of β ig-h3 expression in non-transfected: sc-117752 (A) and human β ig-h3 transfected: sc-176290 (B) 293T whole cell lysates.



β ig-h3 (H-58): sc-28660. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Ween, M.P., et al. 2011. Transforming growth factor- β -induced protein secreted by peritoneal cells increases the metastatic potential of ovarian cancer cells. *Int. J. Cancer* 128: 1570-1584.
- Khan, I., et al. 2011. Role of TGF- β and BMP7 in the pathogenesis of oral submucous fibrosis. *Growth Factors* 29: 119-127.
- Mateos, J., et al. 2012. Differential protein profiling of synovial fluid from rheumatoid arthritis and osteoarthritis patients using LC-MALDI TOF/TOF. *J. Proteomics* 75: 2869-2878.

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.

PROTOCOLS

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