

LTBP-4 (A-2): sc-393666

BACKGROUND

LTBP-4 (latent TGF β -binding protein 4) is a structural component of connective tissue microfibrils which acts as a local regulator of TGF β tissue deposition and signaling. LTBP-4 exists in at least four different forms, due to alternative splicing at the amino-terminus and at the central epidermal growth factor repeat domain. LTBP-4 mRNA is present in heart, aorta, uterus and small intestine. The gene encoding human LTBP-4 localizes to chromosomal position 19q13.1-19q13.2.

REFERENCES

- Giltay, R., et al. 1997. Sequence and expression of a novel member (LTBP-4) of the family of latent transforming growth factor- β binding proteins. *FEBS Lett.* 411: 164-168.
- Saharinen, J., et al. 1998. Identification and characterization of a new latent transforming growth factor- β -binding protein, LTBP-4. *J. Biol. Chem.* 273: 18459-18469.

CHROMOSOMAL LOCATION

Genetic locus: LTBP4 (human) mapping to 19q13.2; Ltbp4 (mouse) mapping to 7 A3.

SOURCE

LTBP-4 (A-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1558-1581 at the C-terminus of LTBP-4 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-393666 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

LTBP-4 (A-2) is recommended for detection of LTBP-4 long and short forms of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for LTBP-4 siRNA (h): sc-45861, LTBP-4 siRNA (m): sc-45862, LTBP-4 shRNA Plasmid (h): sc-45861-SH, LTBP-4 shRNA Plasmid (m): sc-45862-SH, LTBP-4 shRNA (h) Lentiviral Particles: sc-45861-V and LTBP-4 shRNA (m) Lentiviral Particles: sc-45862-V.

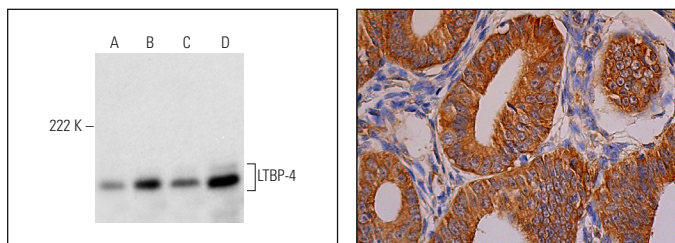
Molecular Weight of LTBP-4: 200-300 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



LTBP-4 (A-2): sc-393666. Western blot analysis of LTBP-4 expression in A549 (A), Jurkat (B), HeLa (C) and K-562 (D) whole cell lysates.

LTBP-4 (A-2): sc-393666. Immunoperoxidase staining of formalin fixed, paraffin-embedded human premenopausal uterus tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Wang, J., et al. 2016. Clonal evolution of glioblastoma under therapy. *Nat. Genet.* 48: 768-776.
- Kinoshita, Y., et al. 2020. Serum latent transforming growth factor- β binding protein 4 as a novel biomarker for idiopathic pleuroparenchymal fibroelastosis. *Respir. Med.* 171: 106077.
- Yang, Y., et al. 2021. ZNF326 promotes colorectal cancer epithelial-mesenchymal transition. *Pathol. Res. Pract.* 225: 153554.

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 for detailed protocols and support products.