



LTBP-4 (F-12): sc-30357

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 19q13.2.

REFERENCES

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- Koli, K., et al. 2001. Novel non-TGF β -binding splice variant of LTBP-4 in human cells and tissues provides means to decrease TGF β deposition. *J. Cell Sci* 114: 2869-2878.
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- Isogai, Z., et al. 2003. Latent transforming growth factor β -binding protein 1 interacts with fibrillin and is a microfibril-associated protein. *J. Biol. Chem* 278: 2750-2757.
- Koli, K., et al. 2004. Disruption of LTBP-4 function reduces TGF β activation and enhances BMP-4 signaling in the lung. *J. Cell Biol* 167: 123-133.
- Chen, Y., et al. 2005. Amino acid requirements for formation of the TGF β -latent TGF β binding protein complexes. *J. Mol. Biol* 345: 175-186.

CHROMOSOMAL LOCATION

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

SOURCE

LTBP-4 (F-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LTBP-4 of human origin.

STORAGE

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

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-30357 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LTBP-4 (F-12) is recommended for detection of the long and short forms of LTBP-4 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

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: A549 cell lysate: sc-2413 or WI 38 whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.