

LTBP-1 (N-20): sc-28132

BACKGROUND

Latent transforming growth factor- β 1 binding protein 1 (LTBP-1), a heavy glycoprotein, is part of the platelet-derived TGF β 1 complex. LTBP-1 serves as an anchor for latent TGF β in the extracellular matrix and is a component of microfibrillar structures. Cleavage of LTBP results in LTBP-1, which may sequester latent TGF β in the extracellular matrix and regulate its activation. LTBP-1 mRNA is enriched in ovarian carcinoma tissues and highly expressed in serous and mucinous adenocarcinomas.

REFERENCES

1. Kanzaki, T., et al. 1990. TGF β 1 binding protein: a component of the large latent complex of TGF β 1 with multiple repeat sequences. *Cell* 61: 1051-1061.
2. Olofsson, A., et al. 1995. Efficient association of an amino-terminally extended form of human latent transforming growth factor- β binding protein with the extracellular matrix. *J. Biol. Chem.* 270: 31294-31297.
3. Saharinen, J., et al. 1999. Latent transforming growth factor β binding proteins (LTBPs)—structural extracellular matrix proteins for targeting TGF β action. *Cytokine Growth Factor Rev.* 10: 99-117.
4. Gualandris, A., et al. 2000. The latent transforming growth factor- β binding protein-1 promotes *in vitro* differentiation of embryonic stem cells into endothelium. *Mol. Cell. Biol.* 11: 4295-4308.

CHROMOSOMAL LOCATION

Genetic locus: LTBP1 (human) mapping to 2q22.3.

SOURCE

LTBP-1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LTBP-1 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-28132 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LTBP-1 (N-20) is recommended for detection of LTBP-1 of 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).

Suitable for use as control antibody for LTBP-1 siRNA (h): sc-45454, LTBP-1 shRNA Plasmid (h): sc-45454-SH and LTBP-1 shRNA (h) Lentiviral Particles: sc-45454-V.

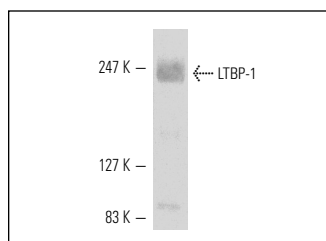
Molecular Weight of LTBP-1: 240 kDa.

Positive Controls: human platelet whole cell lysate: sc-363773.

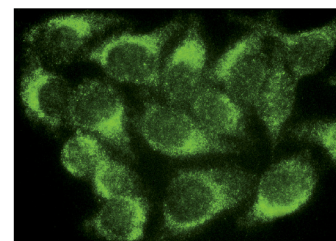
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



LTBP-1 (N-20): sc-28132. Western blot analysis of LTBP-1 expression in human platelet whole cell lysate.



LTBP-1 (N-20): sc-28132. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Lorda-Diez, C.I., et al. 2009. Transforming growth factors β coordinate cartilage and tendon differentiation in the developing limb mesenchyme. *J. Biol. Chem.* 284: 29988-29996.
2. Lorda-Diez, C.I., et al. 2010. Tgf β 2 and 3 are coexpressed with their extracellular regulator Ltbp1 in the early limb bud and modulate mesodermal outgrowth and BMP signaling in chicken embryos. *BMC Dev. Biol.* 10: 69.

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.

MONOS
Satisfaction
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Try **LTBP-1 (H-1): sc-271140**, our highly recommended monoclonal alternative to LTBP-1 (N-20).