

LTBP-1 (H-1): sc-271140

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.

CHROMOSOMAL LOCATION

Genetic locus: LTBP1 (human) mapping to 2p22.3.

SOURCE

LTBP-1 (H-1) is a mouse monoclonal antibody raised against amino acids 601-740 mapping within an internal region of LTBP-1 of human origin.

PRODUCT

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

LTBP-1 (H-1) is available conjugated to agarose (sc-271140 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271140 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271140 PE), fluorescein (sc-271140 FITC), Alexa Fluor® 488 (sc-271140 AF488), Alexa Fluor® 546 (sc-271140 AF546), Alexa Fluor® 594 (sc-271140 AF594) or Alexa Fluor® 647 (sc-271140 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271140 AF680) or Alexa Fluor® 790 (sc-271140 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

LTBP-1 (H-1) is recommended for detection of LTBP-1 of 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-1 siRNA (h): sc-45454, LTBP-1 shRNA Plasmid (h): sc-45454-SH and LTBP-1 shRNA (h) Lentiviral Particles: sc-45454-V.

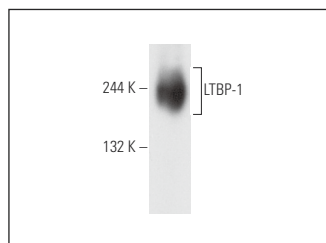
Molecular Weight of LTBP-1: 240 kDa.

Positive Controls: human platelet extract: sc-363773.

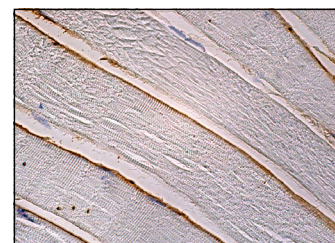
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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 Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



LTBP-1 (H-1): sc-271140. Western blot analysis of LTBP-1 expression in human platelet extract.



LTBP-1 (H-1): sc-271140. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing membrane staining of myocytes.

SELECT PRODUCT CITATIONS

1. Mun, S., et al. 2022. Transcriptome profile of membrane and extracellular matrix components in ligament-fibroblastic progenitors and cementoblasts differentiated from human periodontal ligament cells. *Genes* 13: 659.
2. De Angelis, M.L., et al. 2022. An orthotopic patient-derived xenograft (PDX) model allows the analysis of metastasis-associated features in colorectal cancer. *Front. Oncol.* 12: 869485.
3. Tubita, A., et al. 2024. Latent-transforming growth factor β -binding protein 1/transforming growth factor β 1 complex drives antitumoral effects upon ERK5 targeting in melanoma. *Am. J. Pathol.* 194: 1581-1591.

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.

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