

LTBP-2 (E-10): sc-166199

BACKGROUND

Transforming growth factor (TGF) β is secreted as a part of an inactive complex that frequently contains latent TGF β -binding protein (LTBP). The LTBP family of proteins exhibit a multidomain structure containing cysteine-rich motifs. LTBP-2 is an integral component of elastin-containing microfibrils and contains 20 EGF-like repeats and 4 copies of an 8-cysteine repeat. LTBP-2 is synthesized as a protein by human foreskin fibroblasts. LTBP-2 co-localizes with tropoelastin in several tissues, including lung, dermis, epicardium, pericardium and heart valves, throughout rodent development and in the spleen in the young adult mouse. Pseudoexfoliation (PEX) syndrome is a systemic condition characterized by the pathologic production and accumulation of an abnormal fibrillar extracellular material in many intra- and extraocular tissues. The co-localization of LTBP-1 and LTBP-2 with latent TGF β 1 and with fibrillin-1 on PEX fibrils suggests a possible mechanism for the regulation of TGF β 1 activity in PEX eyes. The LTBP-2 gene maps to human chromosome 14q24.3.

CHROMOSOMAL LOCATION

Genetic locus: LTBP2 (human) mapping to 14q24.3; Ltbp2 (mouse) mapping to 12 D1.

SOURCE

LTBP-2 (E-10) is a mouse monoclonal antibody raised against amino acids 211-480 mapping within an internal region of LTBP-2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LTBP-2 (E-10) is available conjugated to agarose (sc-166199 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166199 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166199 PE), fluorescein (sc-166199 FITC), Alexa Fluor[®] 488 (sc-166199 AF488), Alexa Fluor[®] 546 (sc-166199 AF546), Alexa Fluor[®] 594 (sc-166199 AF594) or Alexa Fluor[®] 647 (sc-166199 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166199 AF680) or Alexa Fluor[®] 790 (sc-166199 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

LTBP-2 (E-10) is recommended for detection of LTBP-2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LTBP-2 siRNA (h): sc-43388, LTBP-2 siRNA (m): sc-43389, LTBP-2 shRNA Plasmid (h): sc-43388-SH, LTBP-2 shRNA Plasmid (m): sc-43389-SH, LTBP-2 shRNA (h) Lentiviral Particles: sc-43388-V and LTBP-2 shRNA (m) Lentiviral Particles: sc-43389-V.

Molecular Weight of LTBP-2: 195 kDa.

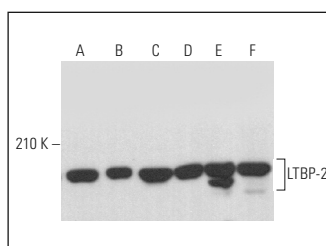
Molecular Weight of LTBP-2 under non-reducing conditions: 210/175 kDa.

Molecular Weight of LTBP-2 glycoprotein: 240 kDa.

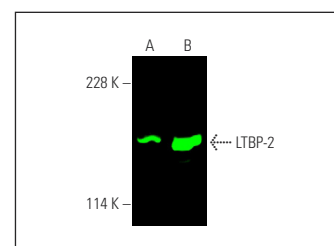
RECOMMENDED SUPPORT REAGENTS

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.

DATA



LTBP-2 (E-10): sc-166199. Western blot analysis of LTBP-2 expression in DU 145 (A), PC-3 (B), F9 (C), NIH/3T3 (D) and PC-12 (E) whole cell lysates and rat testis tissue extract (F).



LTBP-2 (E-10): sc-166199. Near-infrared western blot analysis of LTBP-2 expression in PC-3 (A) and PC-12 (B) whole cell lysates. Blocked with UltraCruz[®] Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

- Wang, J., et al. 2018. LTBP-2 promotes the migration and invasion of gastric cancer cells and predicts poor outcome of patients with gastric cancer. *Int. J. Oncol.* 52: 1886-1898.
- Storer, M.A., et al. 2019. Acquisition of a unique mesenchymal precursor-like blastema state underlies successful adult mammalian digit tip regeneration. *Dev. Cell* 52: 509-524.e9.
- 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.

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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