SANTA CRUZ BIOTECHNOLOGY, INC.

# 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 TGFβ-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 TGFβ1 and with fibrillin-1 on PEX fibrils suggests a possible mechanism for the regulation of TGFβ1 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 µg $IgG_{2b}$ 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 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-166199 HRP), 200 µg/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 µg/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 µg/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 µg per 100-500 µg 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.

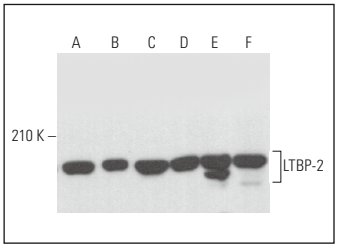
Molecular Weight of LTBP-2 under non-reducing conditions: 210/175 kDa.

Molecular Weight of LTBP-2 glycoprotein: 240 kDa.

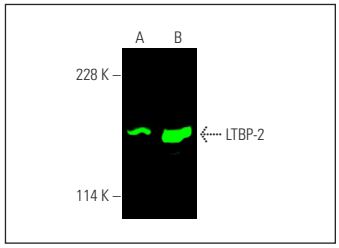
## STORAGE

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

## 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-IgGκ BP-CFL 680: sc-516180.

## SELECT PRODUCT CITATIONS


1. 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.
2. 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.
3. 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.
4. Mahmud, N., et al. 2022. Nail-associated mesenchymal cells contribute to and are essential for dorsal digit tip regeneration. Cell Rep. 41: 111853.
5. Wang, M., et al. 2023. Dengzhan Shengmai capsule attenuates cardiac fibrosis in post-myocardial infarction rats by regulating LTBP2 and TGF-β1/ Smad3 pathway. Phytomedicine 116: 154849.
6. Fullard, N., et al. 2024. Cell senescence-independent changes of human skin fibroblasts with age. Cells 13: 659.


## 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.