

## LTBP-2 (M-20): sc-18345

### BACKGROUND

Transforming growth factor (TGF)  $\beta$  is secreted as a part of an inactive complex that frequently contains latent TGF $\beta$ -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 four 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 $\beta$ 1 and with fibrillin-1 on PEX fibrils suggests a possible mechanism for the regulation of TGF $\beta$ 1 activity in PEX eyes. The LTBP-2 gene maps to human chromosome 14q24.3.

### REFERENCES

- Moren, A., et al. 1994. Identification and characterization of LTBP-2, a novel latent transforming growth factor  $\beta$  binding protein. *J. Biol. Chem.* 269: 32469-32478.
- Bashir, M.M., et al. 1996. Analysis of the human gene encoding latent transforming growth factor  $\beta$  binding protein 2. *Int. J. Biochem. Cell Biol.* 28: 531-542.
- Shiple, J.M., et al. 2000. Developmental expression of latent transforming growth factor  $\beta$  binding protein 2 and its requirement early in mouse development. *Mol. Cell. Biol.* 20: 4879-4887.
- Schlotzer-Schrehardt, U., et al. 2001. Role of transforming growth factor  $\beta$ 1 and its latent form binding protein in pseudoexfoliation syndrome. *Exp. Eye Res.* 73: 765-780.
- Sinha, S., et al. 2002. Expression of latent TGF $\beta$  binding proteins and association with TGF $\beta$ 1 and fibrillin-1 following arterial injury. *Cardiovasc. Res.* 53: 971-983.

### CHROMOSOMAL LOCATION

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

### SOURCE

LTBP-2 (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of LTBP-2 of human origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-18345 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### APPLICATIONS

LTBP-2 (M-20) is recommended for detection of LTBP-2 of mouse, rat 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).

LTBP-2 (M-20) is also recommended for detection of LTBP-2 in additional species, including equine, canine, bovine and porcine.

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: 240 kDa.

Positive Controls: AMJ2-C8 whole cell lysate: sc-364366.

### 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.

### SELECT PRODUCT CITATIONS

- Zhang, Q., et al. 2014. Interleukin-17 promotes development of castration-resistant prostate cancer potentially through creating an immunotolerant and pro-angiogenic tumor microenvironment. *Prostate* 74: 869-789.

### STORAGE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **LTBP-2 (E-10): sc-166199**, our highly recommended monoclonal alternative to LTBP-2 (M-20).