

LEPREL1 (H-126): sc-292343

BACKGROUND

LEPREL1 (Leprecan-like 1), also known as P3H2 (prolyl 3-hydroxylase 2 precursor) or MLAT4 (myxoid liposarcoma-associated protein 4), is a 708 amino acid protein that belongs to a family of collagen prolyl hydroxylases. LEPREL1 has a highly conserved C-terminal domain that contains critical catalytic residues found in lysyl and prolyl 4-hydroxylases, including two iron-binding histidines and an aspartic acid. LEPREL1 is expressed in heart, placenta, lung, liver, skeletal muscle and kidney. Expression is localized to the epithelia of bile ducts and to the sarcoplasm of heart muscle and skeletal muscle. LEPREL1 is required for proper collagen biosynthesis, folding and assembly. LEPREL1 forms a complex with cartilage-associated protein (CRTAP) and cyclophilin B (CyPB) in the endoplasmic reticulum. This complex is responsible for 3-hydroxylation of proline residues of Collagen Type I, II and V, and is important for normal bone development.

REFERENCES

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- Marini, J.C., Cabral, W.A., Barnes, A.M. and Chang, W. 2007. Components of the collagen prolyl 3-hydroxylation complex are crucial for normal bone development. *Cell Cycle* 6: 1675-1681.
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CHROMOSOMAL LOCATION

Genetic locus: LEPREL1 (human) mapping to 3q28; Leprel1 (mouse) mapping to 16 B1.

SOURCE

LEPREL1 (H-126) is a rabbit polyclonal antibody raised against amino acids 317-442 mapping within an internal region of LEPREL1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

LEPREL1 (H-126) is recommended for detection of LEPREL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with family member LEPREL2.

LEPREL1 (H-126) is also recommended for detection of LEPREL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LEPREL1 siRNA (h): sc-78509, LEPREL1 siRNA (m): sc-146708, LEPREL1 shRNA Plasmid (h): sc-78509-SH, LEPREL1 shRNA Plasmid (m): sc-146708-SH, LEPREL1 shRNA (h) Lentiviral Particles: sc-78509-V and LEPREL1 shRNA (m) Lentiviral Particles: sc-146708-V.

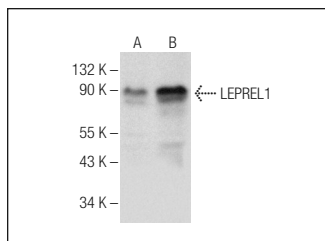
Molecular Weight of LEPREL1: 80 kDa.

Positive Controls: Hs 67 whole cell lysate or Caki-1 cell lysate: sc-2224.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



LEPREL1 (H-126): sc-292343. Western blot analysis of LEPREL1 expression in Hs 67 (A) and Caki-1 (B) whole cell lysates.

RESEARCH USE

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



Try **LEPREL1 (H-4): sc-377096** or **LEPREL1 (B-9): sc-377353**, our highly recommended monoclonal alternatives to LEPREL1 (H-126).