

## LEPREL1 (N-14): sc-102652

### BACKGROUND

LEPREL1 (Iprecan-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 2 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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### CHROMOSOMAL LOCATION

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

### SOURCE

LEPREL1 (N-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of LEPREL1 of human origin.

### PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-102652 P, (100 µg 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

LEPREL1 (N-14) 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), 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.

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.

### 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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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<sup>™</sup> Mounting Medium: sc-24941.

### 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.



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Try **LEPREL1 (H-4): sc-377096** or **LEPREL1 (B-9): sc-377353**, our highly recommended monoclonal alternatives to LEPREL1 (N-14).