

PREPL (S-14): sc-161166

BACKGROUND

PREPL (prolyl endopeptidase-like) is a 727 amino acid cytosolic protein that belongs to the prolyl oligopeptidase subfamily of serine peptidases. PREPL functions as a homodimer and is widely expressed, with highest levels found in heart, brain, kidney and skeletal muscle. Unlike its family members PREP and oligopeptidase B which require both amino and carboxy-terminal sequences for activity, PREPL activity appears to be dependent on only the carboxy-terminal domain. Defects in the gene encoding PREPL results in hypotonia-cystinuria syndrome, also known as 2p21 deletion syndrome, which is characterized by hypotonia at birth, growth hormone deficiency and failure to thrive. The disease is caused by homozygous deletion resulting in disruption of both the SLC3A1 and PREPL genes on chromosome 2p21. There are four isoforms of PREPL that are produced as a result of alternative splicing events.

REFERENCES

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4. Martens, K., et al. 2006. PREPL: a putative novel oligopeptidase propelled into the limelight. *Biol. Chem.* 387: 879-883.
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8. Huang, C.C. and Chang, W.S. 2009. Cooperation between NRF-2 and YY-1 transcription factors is essential for triggering the expression of the PREPL-C2ORF34 bidirectional gene pair. *BMC Mol. Biol.* 10: 67.

CHROMOSOMAL LOCATION

Genetic locus: PREPL (human) mapping to 2p21; Prepl (mouse) mapping to 17 E4.

SOURCE

PREPL (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PREPL of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-161166 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PREPL (S-14) is recommended for detection of PREPL 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).

PREPL (S-14) is also recommended for detection of PREPL in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PREPL siRNA (h): sc-94770, PREPL siRNA (m): sc-152460, PREPL shRNA Plasmid (h): sc-94770-SH, PREPL shRNA Plasmid (m): sc-152460-SH, PREPL shRNA (h) Lentiviral Particles: sc-94770-V and PREPL shRNA (m) Lentiviral Particles: sc-152460-V.

Molecular Weight of PREPL: 72 kDa.

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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.