

PPIL5 (T-19): sc-165278

BACKGROUND

Cyclophilins are conserved, ubiquitous and abundant cytosolic peptidylprolyl *cis-trans* isomerases that accelerate the isomerization of XaaPro peptide bonds and the refolding of proteins. PPIL5 (peptidylprolyl isomerase (cyclophilin)-like 5), also known as LRR-repeat protein 1 (LRR-1) or 4-1BB-mediated-signaling molecule (4-1BBIrr), is a 414 amino acid protein involved in protein modification and ubiquitination. PPIL5 has been found to negatively regulate CD137-mediated signaling cascades by interacting with the cytoplasmic domain of CD137 (also known as 4-1BB), which leads to activation of JNK1 and NFκB. While ubiquitously expressed, highest expression of PPIL5 is found in skeletal muscle and heart. PPIL5 contains five LRR (leucine-rich) repeats, and exists as two alternatively spliced isoforms. The gene encoding PPIL5 maps to human chromosome 14q22.1.

REFERENCES

1. Kwon, B., et al. 2000. 4-1BB: still in the midst of darkness. *Mol. Cells* 10: 119-126.
2. Jang, L.K., et al. 2001. A novel leucine-rich repeat protein (LRR-1): potential involvement in 4-1BB-mediated signal transduction. *Mol. Cells* 12: 304-312.
3. Kamura, T., et al. 2004. VHL-box and SOCS-box domains determine binding specificity for Cul2-Rbx1 and Cul5-Rbx2 modules of ubiquitin ligases. *Genes Dev.* 18: 3055-3065.
4. Nebert, D.W., et al. 2004. Cyclophilin nomenclature problems, or, "a visit from the sequence police". *Hum. Genomics* 1: 381-388.
5. Valle, C., et al. 2005. Molecular and biochemical characterization of a protein cyclophilin from the nematode *Haemonchus contortus*. *Parasitol. Res.* 96: 199-205.
6. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 609193. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: LRR1 (human) mapping to 14q21.3; Lrr1 (mouse) mapping to 12 C2.

SOURCE

PPIL5 (T-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PPIL5 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.

Blocking peptide available for competition studies, sc-165278 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PPIL5 (T-19) is recommended for detection of PPIL5 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 other PPIL family members.

PPIL5 (T-19) is also recommended for detection of PPIL5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PPIL5 siRNA (h): sc-92289, PPIL5 siRNA (m): sc-152412, PPIL5 shRNA Plasmid (h): sc-92289-SH, PPIL5 shRNA Plasmid (m): sc-152412-SH, PPIL5 shRNA (h) Lentiviral Particles: sc-92289-V and PPIL5 shRNA (m) Lentiviral Particles: sc-152412-V.

Molecular Weight of PPIL5: 46 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.