

PARL (H-292): sc-98994

BACKGROUND

Presenilins associated rhomboid-like protein (PARL) is a mitochondrial intramembrane-cleaving protease belonging to the S54 family of proteins. PARL is involved in intramembrane regulated proteolysis as its catalytic activity involves the cleaving of signaling proteins at intracellular membranes to release active fragments in signal transduction cascades. Using a triad of histidine, serine and asparagine, PARL cleaves type-1 transmembrane domains. PARL is a multi-pass membrane protein localizing to the inner and outer mitochondrial membranes, but it can also be detected in the nucleus following proteolytical processing of P- β . PARL co-localizes with the presenilins PSEN1 and PSEN2, the familial Alzheimer disease products.

REFERENCES

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- Sik, A., et al. 2004. Self-regulated cleavage of the mitochondrial intramembrane-cleaving protease PARL yields P- β , a nuclear-targeted peptide. *J. Biol. Chem.* 279: 15323-15329.
- Walder, K., et al. 2005. The mitochondrial rhomboid protease PSARL is a new candidate gene for type 2 diabetes. *Diabetologia* 48: 459-468.
- Reuter-Lorenz, P.A., et al. 2005. A split-brain model of Alzheimer's disease? Behavioral evidence for comparable intra and interhemispheric decline. *Neuropsychologia* 43: 1307-1317.
- Gottlieb, E., et al. 2006. OPA1 and PARL keep a lid on apoptosis. *Cell* 126: 27-29.
- Cipolat, S., et al. 2006. Mitochondrial Rhomboid PARL regulates cytochrome c release during apoptosis via OPA1-dependent cristae remodeling. *Cell* 126: 163-175.

CHROMOSOMAL LOCATION

Genetic locus: PARL (human) mapping to 3q27.1; Parl (mouse) mapping to 16 A3.

SOURCE

PARL (H-292) is a rabbit polyclonal antibody raised against amino acids 80-371 (Deletion 204-253) mapping near the C-terminus of PARL of human origin.

PRODUCT

Each vial contains 200 μ g 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

PARL (H-292) is recommended for detection of PARL of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

PARL (H-292) is also recommended for detection of PARL in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PARL siRNA (h): sc-61295, PARL siRNA (m): sc-61296, PARL shRNA Plasmid (h): sc-61295-SH, PARL shRNA Plasmid (m): sc-61296-SH, PARL shRNA (h) Lentiviral Particles: sc-61295-V and PARL shRNA (m) Lentiviral Particles: sc-61296-V.

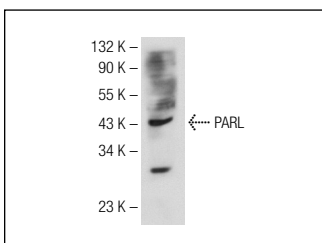
Molecular Weight of PARL: 40 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or COLO 320DM cell lysate: sc-2226.

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



PARL (H-292): sc-98994. Western blot analysis of PARL expression in Jurkat whole cell lysate.

RESEARCH USE

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

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Try **PARL (F-3): sc-514836**, our highly recommended monoclonal alternative to PARL (H-292).