

# PARL (A-24): sc-133884

## BACKGROUND

Presenilins associated rhomboid-like protein (PARL) is a mitochondrial intra-membrane-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- $\beta$ . PARL co-localizes with Presenilin 1 and 2, the familial Alzheimer's disease products.

## REFERENCES

1. Pellegrini, L., et al. 2001. PAMP and PARL, two novel putative metallo-proteases interacting with the COOH-terminus of Presenilin 1 and 2. *J. Alzheimer's Dis.* 3: 181-190.
2. Koonin, E.V., et al. 2003. The rhomboids: a nearly ubiquitous family of intra-membrane serine proteases that probably evolved by multiple ancient horizontal gene transfers. *Genome Biol.* 4: R19.

## CHROMOSOMAL LOCATION

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

## SOURCE

PARL (A-24) is an affinity purified rabbit polyclonal antibody raised against synthetic PARL peptide of human origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG in 500  $\mu$ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

PARL (A-24) is recommended for detection of PARL of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

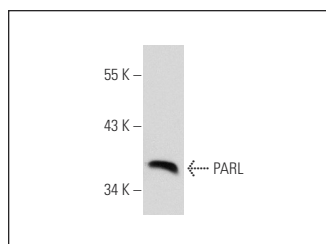
Molecular Weight of PARL: 40 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or COLO 320DM cell lysate: sc-2226.

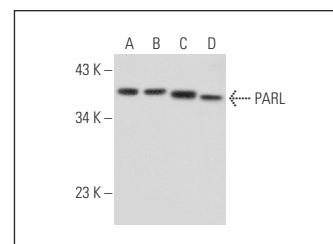
## RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



PARL (A-24): sc-133884. Western blot analysis of PARL expression in COLO 320DM whole cell lysate.



PARL (A-24): sc-133884. Western blot analysis of PARL expression in A-431 (A), MCF7 (B), HeLa (C) and K-562 (D) whole cell lysates.

## STORAGE

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

## RESEARCH USE

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

## 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 **PARL (F-3): sc-514836**, our highly recommended monoclonal alternative to PARL (A-24).