SANTA CRUZ BIOTECHNOLOGY, INC.

Paralemmin (D-5): sc-365869

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Paralemmin, also called Paralemmin-1 or PALM, is a widely expressed peripheral membrane protein that is involved in cell structure and shape. A hydrophobic protein, Paralemmin is anchored to the cytoplasmic side of the cell membrane via di-palmitoylation and prenylation of its C-terminal cysteine cluster. Functioning at the synapse to regulate neuronal plasticity and plasma membrane dynamics, Paralemmin can bind to the dopamine receptor D3, thereby reducing D3 expression and subsequent adenylate cyclase activity. Overexpression of Paralemmin induces fibroblasts to extend long filopodia and to assume extreme cell shapes, suggesting involvement in the formation and stabilization of the plasma membrane. Two isoforms of Paralemmin exists due to alternative splicing events.

REFERENCES

1. Burwinkel, B., et al. 1998. Structure of the human Paralemmin gene (PALM), mapping to human chromosome 19p13.3 and mouse chromosome .and exclusion of coding mutations in grizzled, mocha, jittery, and hesitant mice. Genomics 49: 462-466.
2. Kutzleb, C., et al. 1998. Paralemmin, a prenyl-palmitoyl-anchored phosphoprotein abundant in neurons and implicated in plasma membrane dynamics and cell process formation. J. Cell Biol. 143: 795-813.
3. Hu, B., et al. 2001. The Paralemmin protein family: identification of Paralemmin 2, an isoform differentially spliced to AKAP2/AKAP-KL, and of Palmdelphin, a more distant cytosolic relative. Biochem. Biophys. Res. Commun. 285: 1369-1376.

CHROMOSOMAL LOCATION

Genetic locus: PALM (human) mapping to 19p13.3; Palm (mouse) mapping to 10 C1.

SOURCE

Paralemmin (D-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 259-291 within an internal region of Paralemmin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Paralemmin (D-5) is available conjugated to agarose (sc-365869 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365869 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365869 PE), fluorescein (sc-365869 FITC), Alexa Fluor® 488 (sc-365869 AF488), Alexa Fluor® 546 (sc-365869 AF546), Alexa Fluor® 594 (sc-365869 AF594) or Alexa Fluor® 647 (sc-365869 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365869 AF680) or Alexa Fluor® 790 (sc-365869 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365869 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Paralemmin (D-5) is recommended for detection of Paralemmin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Paralemmin (D-5) is also recommended for detection of Paralemmin in additional species, including bovine and porcine.

Suitable for use as control antibody for Paralemmin siRNA (h): sc-62753, Paralemmin siRNA (m): sc-62754, Paralemmin shRNA Plasmid (h): sc-62753-SH, Paralemmin shRNA Plasmid (m): sc-62754-SH, Paralemmin shRNA (h) Lentiviral Particles: sc-62753-V and Paralemmin shRNA (m) Lentiviral Particles: sc-62754-V.

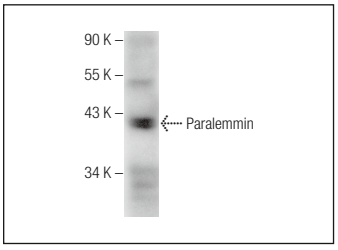
Molecular Weight of Paralemmin: 40 kDa.

Positive Controls: mouse brain extract: sc-2253 or PC-12 cell lysate: sc-2250.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Paralemmin (D-5): sc-365869. Western blot analysis of Paralemmin expression in PC-12 whole cell lysate.

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.