SANTA CRUZ BIOTECHNOLOGY, INC.

Porimin (G-2): sc-377295

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Various death signals trigger cell death mediated by distinct pathways, including apoptosis and cytolysis, or oncosis. Oncosis is characterized by organelle and cell swelling, vacuolization and an increase in membrane permeability. Porimin is a 189 amino acid, keratinocyte-associated, pro-oncosis cell surface receptor that induces membrane injury. Porimin is a member of the cell membrane-associated Mucin family, characterized by the many O-linked and seven N-linked glycosylation sites on the extracellular domain. All tissues express Porimin except for ovary; it is highly expressed in colorectal adenocarcinoma and lung carcinoma. Porimin is a single-pass membrane protein that causes oncotic cell death by rapidly mediating pore formation on the plasma membrane. Porimin-mediated cell death is usually preceded by cell aggregation and the appearance of membrane blebs. Porimin may also play a role in the inhibition of cell adhesion.

REFERENCES

1. Zhang, C., et al. 1998. A cell surface receptor defined by a mAb mediates a unique type of cell death similar to oncosis. Proc. Natl. Acad. Sci. USA 95: 6290-6295.
2. Jansen, B.J., et al. 2001. Serial analysis of gene expression in differentiated cultures of human epidermal keratinocytes. J. Invest. Dermatol. 116: 12-22.
3. Ma, F., et al. 2001. Molecular cloning of Porimin, a novel cell surface receptor mediating oncotic cell death. Proc. Natl. Acad. Sci. USA 98: 9778-9783.

CHROMOSOMAL LOCATION

Genetic locus: TMEM123 (human) mapping to 11q22.2; Tmem123 (mouse) mapping to 9 A1.

SOURCE

Porimin (G-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 81-113 within an internal region of Porimin of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Porimin (G-2) is available conjugated to agarose (sc-377295 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-377295 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377295 PE), fluorescein (sc-377295 FITC), Alexa Fluor® 488 (sc-377295 AF488), Alexa Fluor® 546 (sc-377295 AF546), Alexa Fluor® 594 (sc-377295 AF594) or Alexa Fluor® 647 (sc-377295 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377295 AF680) or Alexa Fluor® 790 (sc-377295 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-377295 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Porimin (G-2) is recommended for detection of Porimin 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).

Suitable for use as control antibody for Porimin siRNA (h): sc-61383, Porimin siRNA (m): sc-61384, Porimin shRNA Plasmid (h): sc-61383-SH, Porimin shRNA Plasmid (m): sc-61384-SH, Porimin shRNA (h) Lentiviral Particles: sc-61383-V and Porimin shRNA (m) Lentiviral Particles: sc-61384-V.

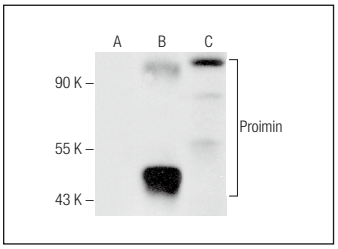
Molecular Weight of Porimin: 110 kDa.

Positive Controls: Porimin (m): 293T Lysate: sc-122710 or HL-60 whole cell lysate: sc-2209.

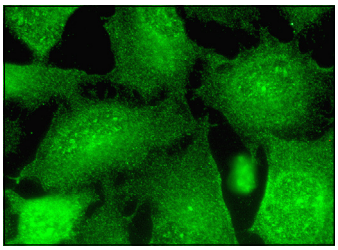
RECOMMENDED SUPPORT REAGENTS

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



Porimin (G-2): sc-377295. Western blot analysis of Porimin expression in non-transfected 293T: sc-117752 (**A**), mouse Porimin transfected 293T: sc-122710 (**B**) and HL-60 (**C**) whole cell lysates.



Porimin (G-2): sc-377295. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

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 for detailed protocols and support products.