SANTA CRUZ BIOTECHNOLOGY, INC.

GAPR-1 (G-1): sc-398529

The Power to Question

BACKGROUND

Cysteine-rich secretory proteins (CRISPs) represent a family of evolutionarily conserved proteins that may play a role in the innate immune system and are transcriptionally regulated by androgens in several tissues. GAPR-1 (Golgi-associated plant pathogenesis-related protein 1), also known as GLIPR2, is a 154 amino acid lipid anchor protein belonging to the CRISP family. GAPR-1 also shares similarity with the pathogenesis-related protein (PR) superfamily, and may play an important role in the immune system. Existing as a homodimer, GAPR-1 is highly expressed in lung and peripheral leukocytes with minor expression in liver and kidney. Containing a conserved sperm-coating protein (SCP) domain, GAPR-1 binds to negatively charged lipids and may be involved in the differentiation of epithelial cells into mesenchymal cells. Increased expression of GAPR-1 in kidney may contribute to the development of fibrosis.

REFERENCES

1. Eisenberg, I., et al. 2002. Cloning and characterization of a human novel gene C9orf19 encoding a conserved putative protein with an SCP-like extracellular protein domain. Gene 293: 141-148.
2. Eberle, H.B., et al. 2002. Identification and characterization of a novel human plant pathogenesis-related protein that localizes to lipid-enriched microdomains in the Golgi complex. J. Cell Sci. 115: 827-838.
3. Groves, M.R., et al. 2004. Crystallization of a Golgi-associated PR-1-related protein (GAPR-1) that localizes to lipid-enriched microdomains. Acta Crystallogr. D Biol. Crystallogr. 60: 730-732.
4. Serrano, R.L., et al. 2004. Structural analysis of the human Golgi-associated plant pathogenesis related protein GAPR-1 implicates dimerization as a regulatory mechanism. J. Mol. Biol. 339: 173-183.

CHROMOSOMAL LOCATION

Genetic locus: GLIPR2 (human) mapping to 9p13.3; Glipr2 (mouse) mapping to 4 B1.

SOURCE

GAPR-1 (G-1) is a mouse monoclonal antibody raised against amino acids 1-154 representing full length GAPR-1 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.

GAPR-1 (G-1) is available conjugated to agarose (sc-398529 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398529 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398529 PE), fluorescein (sc-398529 FITC), Alexa Fluor® 488 (sc-398529 AF488), Alexa Fluor® 546 (sc-398529 AF546), Alexa Fluor® 594 (sc-398529 AF594) or Alexa Fluor® 647 (sc-398529 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398529 AF680) or Alexa Fluor® 790 (sc-398529 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

GAPR-1 (G-1) is recommended for detection of GAPR-1 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 GAPR-1 siRNA (h): sc-92741, GAPR-1 siRNA (m): sc-145325, GAPR-1 shRNA Plasmid (h): sc-92741-SH, GAPR-1 shRNA Plasmid (m): sc-145325-SH, GAPR-1 shRNA (h) Lentiviral Particles: sc-92741-V and GAPR-1 shRNA (m) Lentiviral Particles: sc-145325-V.

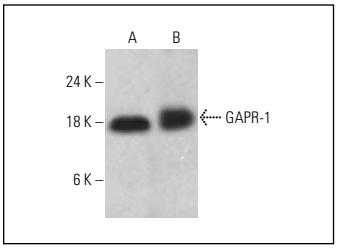
Molecular Weight of GAPR-1: 17 kDa.

Positive Controls: AML-193 whole cell lysate: sc-364182, Y79 cell lysate: sc-2240 or human PBL whole cell lysate.

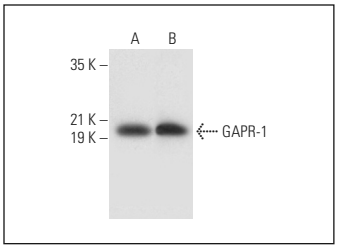
RECOMMENDED SUPPORT REAGENTS

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



GAPR-1 (G-1) HRP: sc-398529 HRP. Direct western blot analysis of GAPR-1 expression in AML-193 (**A**) and human PBL (**B**) whole cell lysates.



GAPR-1 (G-1): sc-398529. Western blot analysis of GAPR-1 expression in AML-193 (**A**) and Y79 (**B**) 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 for detailed protocols and support products.