SANTA CRUZ BIOTECHNOLOGY, INC.

GAPR-1 (E-13): sc-164453

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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

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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.
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5. Baxter, R.M., et al. 2007. The plant pathogenesis related protein GLIPR-2 is highly expressed in fibrotic kidney and promotes epithelial to mesenchymal transition *in vitro*. Matrix Biol. 26: 20-29.
6. Vadnais, M.L., et al. 2008. Molecular cloning and expression of the CRISP family of proteins in the boar. Biol. Reprod. 79: 1129-1134.
7. Gibbs, G.M., et al. 2008. The CAP superfamily: cysteine-rich secretory proteins, antigen 5, and pathogenesis-related 1 proteins—roles in reproduction, cancer, and immune defense. Endocr. Rev. 29: 865-897.
8. Cohen, D.J., et al. 2008. Participation of cysteine-rich secretory proteins (CRISP) in mammalian sperm-egg interaction. Int. J. Dev. Biol. 52: 737-742.
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CHROMOSOMAL LOCATION

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

SOURCE

GAPR-1 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GAPR-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164453 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GAPR-1 (E-13) is recommended for detection of GAPR-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

GAPR-1 (E-13) is also recommended for detection of GAPR-1 in additional species, including canine.

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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.