

SLC35G1 (G-15): sc-324426

BACKGROUND

SLC35G1 (solute carrier family 35 member G1), also known as transmembrane protein 20 (TMEM20) or partner of STIM1 (POST), is a 365 amino acid multi-pass membrane protein belonging to the TMEM20 family. SLC35G1 contains 2 EamA domains and exists as 2 alternatively spliced isoforms. SLC35G1 is located in the cell membrane and the endoplasmic reticulum membrane, and is thought to play a role in homeostasis and sensing intracellular calcium. SLC35G1 interacts with STIM1 (stromal interaction molecule 1), an endoplasmic reticulum calcium sensor, and Orai1, a highly calcium-selective plasma membrane ion channel. SLC35G1 may prevent calcium efflux from the cell by reducing plasma membrane calcium pump activity by acting as a negative regulator of plasma membrane calcium-transporting ATPases such as ATP2B1 and ATP2B4.

REFERENCES

- Liou, J., et al. 2005. STIM is a Ca²⁺ sensor essential for Ca²⁺-store-depletion-triggered Ca²⁺ influx. *Curr. Biol.* 15: 1235-1241.
- Soboloff, J., et al. 2006. Orai1 and STIM reconstitute store-operated calcium channel function. *J. Biol. Chem.* 281: 20661-20665.
- Park, C.Y., et al. 2009. STIM1 clusters and activates CRAC channels via direct binding of a cytosolic domain to Orai1. *Cell* 136: 876-890.
- Abdelmohsen, K., et al. 2009. Ubiquitin-mediated proteolysis of HuR by heat shock. *EMBO J.* 28: 1271-1282.
- Västermark, A., et al. 2011. Functional specialization in nucleotide sugar transporters occurred through differentiation of the gene cluster EamA (DUF6) before the radiation of Viridiplantae. *BMC Evol. Biol.* 11: 123.
- Krapivinsky, G., et al. 2011. POST, partner of stromal interaction molecule 1 (STIM1), targets STIM1 to multiple transporters. *Proc. Natl. Acad. Sci. USA* 108: 19234-19239.

CHROMOSOMAL LOCATION

Genetic locus: SLC35G1 (human) mapping to 10q23.33.

SOURCE

SLC35G1 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SLC35G1 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-324426 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

SLC35G1 (G-15) is recommended for detection of SLC35G1 of 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).

Suitable for use as control antibody for SLC35G1 siRNA (h): sc-90554, SLC35G1 shRNA Plasmid (h): sc-90554-SH and SLC35G1 shRNA (h) Lentiviral Particles: sc-90554-V.

Molecular Weight of SLC35G1: 40 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.