

GRINL1A (S-20): sc-168041

BACKGROUND

GRINL1A (glutamate receptor-like protein 1A), also known as Gcom2 or Gdown, is a 148 amino acid protein belonging to the GRINL1 family. The gene encoding GRINL1A maps to human chromosome 15q21.3, and exists as two readthrough transcript variations. Alternative splicing events additionally result in six isoforms, designated Gdown1, Gdown6, isoform 3, Gdown4, Gdown3 and Gcom1—which exists as a naturally occurring fusion protein with GRINL1A. Isoform 1 localizes to the nucleus and is expressed in adult and fetal brain, as well as heart, kidney, skeletal muscle, small intestine, lung, prostate and testis. A component of the Pol II(G) complex, isoform 1 may also be involved in the Mediator complex-dependent regulation of transcription activation.

REFERENCES

- Roginski, R.S., et al. 2001. Assignment of an ionotropic glutamate receptor-like gene (GRINL1A) to human chromosome 15q22.1 by *in situ* hybridization. *Cytogenet. Cell Genet.* 93: 143-144.
- Roginski, R.S., et al. 2004. The human GRINL1A gene defines a complex transcription unit, an unusual form of gene organization in eukaryotes. *Genomics* 84: 265-276.
- Roginski, R.S., et al. 2008. GRINL1A colocalizes with N-methyl D-aspartate receptor NR1 subunit and reduces N-methyl D-aspartate toxicity. *Neuroreport* 19: 1721-1726.
- Seeger, T.S., et al. 2010. Myozap, a novel intercalated disc protein, activates serum response factor-dependent signaling and is required to maintain cardiac function *in vivo*. *Circ. Res.* 106: 880-890.
- García-Mayoral, M.F., et al. 2010. Structural basis for the interaction between dynein light chain 1 and the glutamate channel homolog GRINL1A. *FEBS J.* 277: 2340-2350.
- Huo, L., et al. 2011. Cdc42-dependent formation of the ZO-1/MRCK complex at the leading edge controls cell migration. *EMBO J.* 30: 665-678.
- Lettre, G., et al. 2011. Genome-wide association study of coronary heart disease and its risk factors in 8,090 African Americans: the NHLBI CARE project. *PLoS Genet.* 7: e1001300.

CHROMOSOMAL LOCATION

Genetic locus: Grinl1a (mouse) mapping to 9 D.

SOURCE

GRINL1A (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GRINL1A of mouse origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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

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-168041 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GRINL1A (S-20) is recommended for detection of GRINL1A of mouse and rat 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 GRINL1A siRNA (m): sc-145769, GRINL1A shRNA Plasmid (m): sc-145769-SH and GRINL1A shRNA (m) Lentiviral Particles: sc-145769-V.

Molecular Weight of GRINL1A: 42 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.

RESEARCH USE

For research use only, not for use in diagnostic procedures.