

GRAMD1B (E-20): sc-247078

BACKGROUND

GRAMD1B (GRAM domain containing 1B) is a 738 amino acid single-pass membrane protein that contains one GRAM domain and exists as 3 alternatively spliced isoforms. The gene encoding GRAMD1B maps to human chromosome 11q24.1. Chromosome 11 comprises approximately 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded *Atm* gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. *Atm* mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and thalassemia are caused by *HBB* gene mutations, while Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the *WT1* gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11-encoded genes.

REFERENCES

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3. Schuchman, E.H. 2007. The pathogenesis and treatment of acid sphingomyelinase-deficient Niemann-Pick disease. *J. Inherit. Metab. Dis.* 30: 654-663.
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5. Bhuiyan, Z.A., et al. 2008. An intronic mutation leading to incomplete skipping of exon-2 in *KCNQ1* rescues hearing in Jervell and Lange-Nielsen syndrome. *Prog. Biophys. Mol. Biol.* 98: 319-327.
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CHROMOSOMAL LOCATION

Genetic locus: GRAMD1B (human) mapping to 11q24.1; *Gramd1b* (mouse) mapping to 9 A5.1.

SOURCE

GRAMD1B (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GRAMD1B 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-247078 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GRAMD1B (E-20) is recommended for detection of GRAMD1B 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); non cross-reactive with GRAMD1A or GRAMD1C.

GRAMD1B (E-20) is also recommended for detection of GRAMD1B in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GRAMD1B siRNA (h): sc-106805, GRAMD1B siRNA (m): sc-145750, GRAMD1B shRNA Plasmid (h): sc-106805-SH, GRAMD1B shRNA Plasmid (m): sc-145750-SH, GRAMD1B shRNA (h) Lentiviral Particles: sc-106805-V and GRAMD1B shRNA (m) Lentiviral Particles: sc-145750-V.

Molecular Weight of GRAMD1B isoforms: 85/81/50 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.