SANTA CRUZ BIOTECHNOLOGY, INC.

GRAMD3 (G-10): sc-515266

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

GRAMD3 (GRAM domain-containing protein 3) is a 432 amino acid protein that contains one GRAM domain and is encoded by a gene that maps to human chromosome 5q23.2. With 181 million base pairs encoding around 1,000 genes, chromosome 5 is about 6% of human genomic DNA. It is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Treacher Collins syndrome is also chromosome 5 associated and is caused by insertions or deletions within the TCOF1 gene. Deletion of the p arm of chromosome 5 leads to cri du chat syndrome. Deletion of 5q or chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

1. Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. Am. J. Hum. Genet. 49: 17-22.
2. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. Genomics 16: 726-732.
3. Kadmon, M., et al. 2001. Duodenal adenomatosis in familial adenomatous polyposis coli. A review of the literature and results from the heidelberg polyposis register. Int. J. Colorectal Dis. 16: 63-75.
4. South, S.T., et al. 2006. A new genomic mechanism leading to cri-du-chat syndrome. Am. J. Med. Genet. A 140: 2714-2720.
5. Aretz, S., et al. 2007. Somatic APC mosaicism: a frequent cause of familial adenomatous polyposis (FAP). Hum. Mutat. 28: 985-992.
6. Cleaver, J.E., et al. 2007. Cockayne syndrome exhibits dysregulation of p21 and other gene products that may be independent of transcription-coupled repair. Neuroscience 145: 1300-1308.

CHROMOSOMAL LOCATION

Genetic locus: GRAMD3 (human) mapping to 5q23.2; Gramd3 (mouse) mapping to 18 D3.

SOURCE

GRAMD3 (G-10) is a mouse monoclonal antibody raised against amino acids 206-299 mapping within an internal region of GRAMD3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GRAMD3 (G-10) is available conjugated to agarose (sc-515266 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515266 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515266 PE), fluorescein (sc-515266 FITC), Alexa Fluor® 488 (sc-515266 AF488), Alexa Fluor® 546 (sc-515266 AF546), Alexa Fluor® 594 (sc-515266 AF594) or Alexa Fluor® 647 (sc-515266 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515266 AF680) or Alexa Fluor® 790 (sc-515266 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

GRAMD3 (G-10) is recommended for detection of GRAMD3 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 GRAMD3 siRNA (h): sc-91660, GRAMD3 siRNA (m): sc-145753, GRAMD3 shRNA Plasmid (h): sc-91660-SH, GRAMD3 shRNA Plasmid (m): sc-145753-SH, GRAMD3 shRNA (h) Lentiviral Particles: sc-91660-V and GRAMD3 shRNA (m) Lentiviral Particles: sc-145753-V.

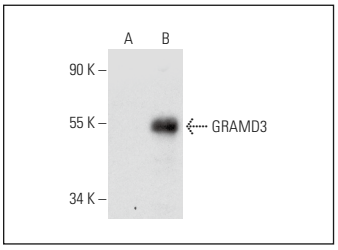
Molecular Weight of GRAMD3: 48 kDa.

Positive Controls: GRAMD3 (h): 293T Lysate: sc-371428, MH-S whole cell lysate: sc-364785 or RAW 264.7 whole cell lysate: sc-2211.

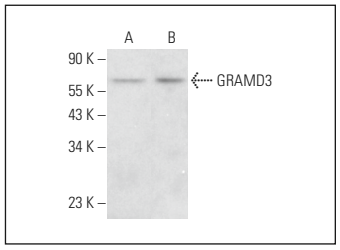
RECOMMENDED SUPPORT REAGENTS

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



GRAMD3 (G-10): sc-515266. Western blot analysis of GRAMD3 expression in non-transfected: sc-117752 (**A**) and human GRAMD3 transfected: sc-371428 (**B**) 293T whole cell lysates.



GRAMD3 (G-10): sc-515266. Western blot analysis of GRAMD3 expression in MH-S (**A**) and RAW 264.7 (**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.