

Rab 3 GAP p150 (H-7): sc-398314

BACKGROUND

Rab 3 GAP p150, also known as RAB3GAP2 or Rab3 GTPase-activating protein non-catalytic subunit, is a ubiquitously expressed protein that contains 1,393 amino acids and belongs to the Rab3-GAP regulatory subunit family. Defects in Rab 3 GAP p150 are the cause of Martsolf and Warburg Micro syndrome. Both syndromes are characterized by congenital cataracts, microphthalmia, postnatal microcephaly and developmental delay, and are inherited in an autosomal recessive manner. The Rab3 GTPase-activating complex is a heterodimer composed of RAB3GAP and Rab 3 GAP p150 that interacts with DMXL2. Existing as two alternatively spliced isoforms, the Rab 3 GAP p150 gene is conserved in chimpanzee, canine, bovine, rat, chicken, zebrafish, fruit fly, mosquito, *A. thaliana* and rice. The Rab 3 GAP p150 gene contains 36 exons and maps to human chromosome 1q41.

REFERENCES

- Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XII. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 355-364.
- Nagano, F., et al. 1998. Molecular cloning and characterization of the non-catalytic subunit of the Rab3 subfamily-specific GTPase-activating protein. J. Biol. Chem. 273: 24781-24785.
- Aligianis, I.A., et al. 2005. Mutations of the catalytic subunit of Rab 3 GAP cause Warburg Micro syndrome. Nat. Genet. 37: 221-223.
- Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 609275. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Aligianis, I.A., et al. 2006. Mutation in Rab3 GTPase-activating protein (RAB3GAP) noncatalytic subunit in a kindred with Martsolf syndrome. Am. J. Hum. Genet. 78: 702-707.

CHROMOSOMAL LOCATION

Genetic locus: RAB3GAP2 (human) mapping to 1q41; Rab3gap2 (mouse) mapping to 1 H5.

SOURCE

Rab 3 GAP p150 (H-7) is a mouse monoclonal antibody raised against amino acids 64-173 mapping near the N-terminus of Rab 3 GAP p150 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Rab 3 GAP p150 (H-7) is available conjugated to agarose (sc-398314 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398314 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398314 PE), fluorescein (sc-398314 FITC), Alexa Fluor® 488 (sc-398314 AF488), Alexa Fluor® 546 (sc-398314 AF546), Alexa Fluor® 594 (sc-398314 AF594) or Alexa Fluor® 647 (sc-398314 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398314 AF680) or Alexa Fluor® 790 (sc-398314 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Rab 3 GAP p150 (H-7) is recommended for detection of Rab 3 GAP p150 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).

Rab 3 GAP p150 (H-7) is also recommended for detection of Rab 3 GAP p150 in additional species, including equine.

Suitable for use as control antibody for Rab 3 GAP p150 siRNA (h): sc-78762, Rab 3 GAP p150 shRNA Plasmid (h): sc-78762-SH and Rab 3 GAP p150 shRNA (h) Lentiviral Particles: sc-78762-V.

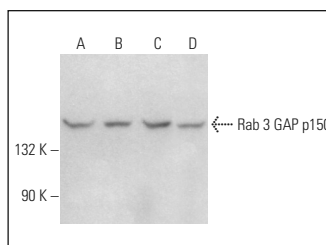
Molecular Weight of Rab 3 GAP p150 isoforms: 156/23 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, Hep G2 cell lysate: sc-2227 or HL-60 whole cell lysate: sc-2209.

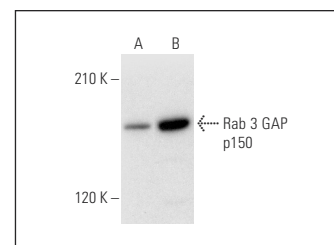
RECOMMENDED SUPPORT REAGENTS

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



Rab 3 GAP p150 (H-7): sc-398314. Western blot analysis of Rab 3 GAP p150 expression in IMR-32 (A), HeLa (B), Neuro-2A (C) and C6 (D) whole cell lysates.



Rab 3 GAP p150 (H-7): sc-398314. Western blot analysis of Rab 3 GAP p150 expression in Hep G2 (A) and HL-60 (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.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA