

ARHGEF16 (I-12): sc-160153

BACKGROUND

Rho GTPases, which play fundamental roles in numerous cellular processes, are initiated by external stimuli that signal through G protein-coupled receptors. ARHGEF16 (Rho guanine exchange factor (GEF) 16), also known as NBR or GEF16, is a 709 amino acid protein that contains a DH (DBL-homology) domain, a PH domain and an SH3 domain. The DH domain consists of a region containing about 150 amino acids that induce Rho family GTPases to release GDP. The DH domain is invariably followed by a Pleckstrin homology (PH) domain, and while not required for catalysis of nucleotide exchange, the PH domain is suggested to greatly increase catalytic efficiency. ARHGEF16 exists as two alternatively spliced isoforms and is encoded by a gene located on human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

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- Stacey, S.N., et al. 2008. Common variants on 1p36 and 1q42 are associated with cutaneous basal cell carcinoma but not with melanoma or pigmentation traits. *Nat. Genet.* 40: 1313-1318.
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CHROMOSOMAL LOCATION

Genetic locus: ARHGEF16 (human) mapping to 1p36.32; Arhgef16 (mouse) mapping to 4 E2.

SOURCE

ARHGEF16 (I-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARHGEF16 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-160153 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARHGEF16 (I-12) is recommended for detection of ARHGEF16 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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); non cross-reactive with other ARHGEF family members.

ARHGEF16 (I-12) is also recommended for detection of ARHGEF16 in additional species, including equine and canine.

Suitable for use as control antibody for ARHGEF16 siRNA (h): sc-88758, ARHGEF16 siRNA (m): sc-141224, ARHGEF16 shRNA Plasmid (h): sc-88758-SH, ARHGEF16 shRNA Plasmid (m): sc-141224-SH, ARHGEF16 shRNA (h) Lentiviral Particles: sc-88758-V and ARHGEF16 shRNA (m) Lentiviral Particles: sc-141224-V.

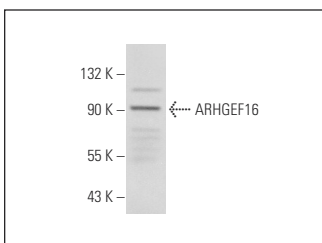
Molecular Weight of ARHGEF16: 80 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



ARHGEF16 (I-12): sc-160153. Western blot analysis of ARHGEF16 expression in HeLa whole cell lysate.

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.