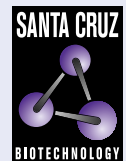


# SMAP1 (G-3): sc-514021



The Power to Question

## BACKGROUND

SMAP1 (stromal membrane-associated protein 1), also known as small ArfGAP 1, is a 467 amino acid peripheral membrane protein that localizes to the cytoplasmic side of the cell membrane where it participates in clathrin-dependent endocytosis. A GTPase activating protein for ARF6, SMAP1 is widely expressed in tissues such as lymph node, spinal cord, bone marrow, adrenal gland, trachea, stomach, thyroid and embryonic hematopoietic tissues. Containing one Arf-GAP domain, SMAP1 exists as multiple isoforms as a result of alternative splicing events and is encoded by a gene that maps to human chromosome 6q13. Human chromosome 6 contains 170 million base pairs, comprises nearly 6% of the human genome and is associated with Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder.

## REFERENCES

1. Brunner, H.G., et al. 1994. A Stickler syndrome gene is linked to chromosome 6 near the COL11A2 gene. *Hum. Mol. Genet.* 3: 1561-1564.
2. Sato, Y., et al. 1998. Involvement of stromal membrane-associated protein (SMAP-1) in erythropoietic microenvironment. *J. Biochem.* 124: 209-216.
3. Obinata, M., et al. 1999. Cellular and molecular regulation of an erythropoietic inductive microenvironment (EIM). *Cell Struct. Funct.* 24: 171-179.
4. Marcos, I., et al. 2002. Cloning, characterization and chromosome mapping of the human SMAP1 gene. *Gene* 292: 167-171.
5. Cesari, R., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. *Proc. Natl. Acad. Sci. USA* 100: 5956-5961.
6. Barragan, I., et al. 2005. Mutation screening of three candidate genes, ELOVL5, SMAP1 and GLUL1 in autosomal recessive retinitis pigmentosa. *Int. J. Mol. Med.* 16: 1163-1167.
7. Tanabe, K., et al. 2005. A novel GTPase-activating protein for ARF6 directly interacts with clathrin and regulates clathrin-dependent endocytosis. *Mol. Biol. Cell* 16: 1617-1628.

## CHROMOSOMAL LOCATION

Genetic locus: SMAP1 (human) mapping to 6q13; Smap1 (mouse) mapping to 1 A5.

## SOURCE

SMAP1 (G-3) is a mouse monoclonal antibody raised against amino acids 222-293 mapping within an internal region of SMAP1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

SMAP1 (G-3) is recommended for detection of SMAP1 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 SMAP1 siRNA (h): sc-95497, SMAP1 siRNA (m): sc-153615, SMAP1 shRNA Plasmid (h): sc-95497-SH, SMAP1 shRNA Plasmid (m): sc-153615-SH, SMAP1 shRNA (h) Lentiviral Particles: sc-95497-V and SMAP1 shRNA (m) Lentiviral Particles: sc-153615-V.

Molecular Weight of SMAP1: 50 kDa.

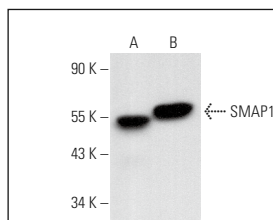
Positive Controls: AT3B-1 whole cell lysate: sc-364372, F9 cell lysate: sc-2245 or HEK293 whole cell lysate: sc-45136.

## RECOMMENDED SUPPORT REAGENTS

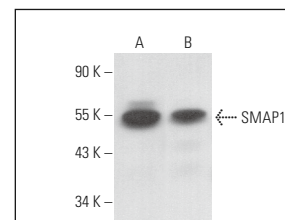
To ensure optimal results, the following support reagents are recommended:

- 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



SMAP1 (G-3): sc-514021. Western blot analysis of SMAP1 expression in AT3B-1 (A) and F9 (B) whole cell lysates.



SMAP1 (G-3): sc-514021. Western blot analysis of SMAP1 expression in HEK293 (A) and A2058 (B) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.