

# SAPS1 (K-19): sc-109862

## BACKGROUND

SAPS1 (SAPS domain family, member 1), also known as PP6R1 or SAP190, is a 943 amino acid protein that localizes to the cytoplasm and exists as multiple alternatively spliced isoforms. Expressed ubiquitously with notably higher expression in testis, SAPS1 functions as a regulatory subunit of the heterotrimeric protein phosphatase 6 (PP6) complex and is thought to play a role in protein scaffolding related to the PP6 complex. The gene encoding SAPS1 maps to human chromosome 19, which consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fc receptors (Fc Rs). Key genes for eye color and hair color also map to chromosome 19.

## REFERENCES

- Zimmermann, W., Weber, B., Ortlieb, B., Rudert, F., Schempp, W., Fiebig, H.H., Shively, J.E., von Kleist, S. and Thompson, J.A. 1988. Chromosomal localization of the carcinoembryonic antigen gene family and differential expression in various tumors. *Cancer Res.* 48: 2550-2554.
- Kikuno, R., Nagase, T., Ishikawa, K., Hirose, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1999. Prediction of the coding sequences of unidentified human genes. XIV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 6: 197-205.
- LaPoint, S.F., Patel, U. and Rubio, A. 2000. Cerebral autosomal dominant arteriopathy with subcortical infarcts and leukoencephalopathy (CADASIL). *Adv. Anat. Pathol.* 7: 307-321.
- Trettel, F., Mantuano, E., Calabresi, V., Veneziano, L., Olsen, A.S., Georgescu, A., Gordon, L., Sabbadini, G., Frontali, M. and Jodice C. 2000. A fine physical map of the CACNA1A gene region on 19p13.1-p13.2 chromosome. *Gene* 241: 45-50.
- Stefansson, B. and Brautigan, D.L. 2006. Protein phosphatase 6 subunit with conserved SIT4-associated protein domain targets I $\kappa$ B $\epsilon$ . *J. Biol. Chem.* 281: 22624-22634.
- Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610875. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Stefansson, B., Ohama, T., Daugherty, A.E. and Brautigan, D.L. 2008. Protein phosphatase 6 regulatory subunits composed of Ankyrin repeat domains. *Biochemistry* 47: 1442-1451.

## CHROMOSOMAL LOCATION

Genetic locus: SAPS1 (human) mapping to 19q13.42; Saps1 (mouse) mapping to 7 A1.

## STORAGE

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

## SOURCE

SAPS1 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SAPS1 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-109862 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SAPS1 (K-19) is recommended for detection of SAPS1 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 SAPS2.

SAPS1 (K-19) is also recommended for detection of SAPS1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for SAPS1 siRNA (h): sc-97773, SAPS1 siRNA (m): sc-106531, SAPS1 shRNA Plasmid (h): sc-97773-SH, SAPS1 shRNA Plasmid (m): sc-106531-SH, SAPS1 shRNA (h) Lentiviral Particles: sc-97773-V and SAPS1 shRNA (m) Lentiviral Particles: sc-106531-V.

Molecular Weight of SAPS1: 103 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.

## 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) or our catalog for detailed protocols and support products.