

# SAPS2 (N-20): sc-79715

## BACKGROUND

SAPS2 (SAPS domain family, member 2), also known as PP6R2, KIAA0685 or SAP190, is a 966 amino acid protein that localizes to the cytoplasm and exists as multiple alternatively spliced isoforms. Expressed ubiquitously with strongest levels present in testis, heart, liver, brain, kidney and placenta, SAPS2 functions as a regulatory subunit of the PP6 (protein phosphatase 6) holoenzyme that may play a role in protein scaffolding and  $\text{I}\kappa\text{B-}\epsilon$  degradation. The gene encoding SAPS2 maps to human chromosome 22, which houses over 500 genes and is the second smallest human chromosome. Mutations in several of the genes that map to chromosome 22 are involved in the development of Phelan-McDermid syndrome, Neurofibromatosis type 2, autism and schizophrenia.

## REFERENCES

1. Ishikawa, K., Nagase, T., Suyama, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1998. Prediction of the coding sequences of unidentified human genes. X. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 5: 169-176.
2. Gilbert, F. 1998. Disease genes and chromosomes: disease maps of the human genome. Chromosome 22. Genet. Test. 2: 89-97.
3. Schwab, S.G. and Wildenauer, D.B. 1999. Chromosome 22 workshop report. Am. J. Med. Genet. 88: 276-278.
4. Stefansson, B. and Brautigan, D.L. 2006. Protein phosphatase 6 subunit with conserved Sit4-associated protein domain targets  $\text{I}\kappa\text{B-}\epsilon$ . J. Biol. Chem. 281: 22624-22634.
5. Hay, B.N. 2007. Deletion 22q11: spectrum of associated disorders. Semin. Pediatr. Neurol. 14: 136-139.
6. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610877. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. 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: SAPS2 (human) mapping to 22q13.33; Saps2 (mouse) mapping to 15 E3.

## SOURCE

SAPS2 (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of SAPS2 of human origin.

## PRODUCT

Each vial contains 100  $\mu\text{g}$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79715 P, (100  $\mu\text{g}$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SAPS2 (N-20) is recommended for detection of SAPS2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu\text{g}$  per 100-500  $\mu\text{g}$  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).

SAPS2 (N-20) is also recommended for detection of SAPS2 in additional species, including equine and canine.

Suitable for use as control antibody for SAPS2 siRNA (h): sc-76450, SAPS2 siRNA (m): sc-76451, SAPS2 shRNA Plasmid (h): sc-76450-SH, SAPS2 shRNA Plasmid (m): sc-76451-SH, SAPS2 shRNA (h) Lentiviral Particles: sc-76450-V and SAPS2 shRNA (m) Lentiviral Particles: sc-76451-V.

Molecular Weight of SAPS2: 105 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.

## PROTOCOLS

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