

# GASP-1 (S-15): sc-242880

## BACKGROUND

GASP-1 (G protein-coupled receptor-associated sorting protein-1), also known as GPRASP1, is a 1,395 amino acid member of the GPRASP protein family. In lysosomes, GASP-1 targets receptors for degradation and may also regulate lysosomal sorting and functional downregulation of G protein-coupled receptors. Localized to the cytoplasm, GASP-1 interacts with the cytoplasmic tails of G protein-coupled receptors, such as D2DR, D4DR,  $\beta$ 2-AR and DOR-1. GASP-1 has also been found to interact with Per1, a period protein that exhibits circadian rhythms in the suprachiasmatic nucleus (SCN) found in the brain. GASP-1 is expressed mainly in the brain, with lower expression in spinal cord, medulla and substantia nigra.

## REFERENCES

1. Patrie, K.M., et al. 2001. The membrane-associated guanylate kinase protein MAGI-1 binds megalin and is present in glomerular podocytes. *J. Am. Soc. Nephrol.* 12: 667-677.
2. Whistler, J.L., et al. 2002. Modulation of postendocytic sorting of G protein-coupled receptors. *Science* 297: 615-620.
3. Heydorn, A., et al. 2004. A library of 7TM receptor C-terminal tails. Interactions with the proposed post-endocytic sorting proteins ERM-binding phosphoprotein 50 (EBP50), N-ethylmaleimide-sensitive factor (NSF), sorting nexin 1 (SNX1), and G protein-coupled receptor-associated sorting protein (GASP). *J. Biol. Chem.* 279: 54291-54303.
4. Simonin, F., et al. 2004. Identification of a novel family of G protein-coupled receptor associated sorting proteins. *J. Neurochem.* 89: 766-775.
5. Bartlett, S.E., et al. 2005. Dopamine responsiveness is regulated by targeted sorting of D2 receptors. *Proc. Natl. Acad. Sci. USA* 102: 11521-11526.
6. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 300417. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Blakey, J.D., et al. 2009. Positionally cloned asthma susceptibility gene polymorphisms and disease risk in the British 1958 Birth Cohort. *Thorax* 64: 381-387.

## CHROMOSOMAL LOCATION

Genetic locus: GPRASP1 (human) mapping to Xq22.1; Gprasp1 (mouse) mapping to X F1.

## SOURCE

GASP-1 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GASP-1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-242880 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GASP-1 (S-15) is recommended for detection of GASP-1 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).

Suitable for use as control antibody for GASP-1 siRNA (h): sc-90993, GASP1 siRNA (m): sc-145337, GASP-1 shRNA Plasmid (h): sc-90993-SH, GASP1 shRNA Plasmid (m): sc-145337-SH, GASP-1 shRNA (h) Lentiviral Particles: sc-90993-V and GASP1 shRNA (m) Lentiviral Particles: sc-145337-V.

Molecular Weight of GASP-1: 156 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> 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.