

# GPR18 (V-12): sc-79504

## BACKGROUND

G protein-coupled receptors (GPRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, comprise a superfamily of proteins that play a role in many different stimulus-response pathways. G protein-coupled receptors translate extracellular signals into intracellular signals (G protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. GPR18 (G protein-coupled receptor 18), also known as GPCRW, is a 331 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor family. Expressed abundantly in spleen and testis, GPR18 functions as a receptor for N-arachidonyl glycine and is thought to contribute to the regulation of the immune system. GPR18 activity is mediated by G proteins that specifically inhibit adenylyl cyclase.

## REFERENCES

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- Gantz, I., Muraoka, A., Yang, Y.K., Samuelson, L.C., Zimmerman, E.M., Cook, H. and Yamada, T. 1997. Cloning and chromosomal localization of a gene (GPR18) encoding a novel seven transmembrane receptor highly expressed in spleen and testis. *Genomics* 42: 462-466.
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- Schöneberg, T., Schultz, G. and Gudermann, T. 1999. Structural basis of G protein-coupled receptor function. *Mol. Cell. Endocrinol.* 151: 181-193.
- Schöneberg, T., Schulz, A. and Gudermann, T. 2002. The structural basis of G protein-coupled receptor function and dysfunction in human diseases. *Rev. Physiol. Biochem. Pharmacol.* 144: 143-227.

## CHROMOSOMAL LOCATION

Genetic locus: GPR18 (human) mapping to 13q32.3; Gpr18 (mouse) mapping to 14 E5.

## SOURCE

GPR18 (V-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of GPR18 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-79504 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

GPR18 (V-12) is recommended for detection of GPR18 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

GPR18 (V-12) is also recommended for detection of GPR18 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GPR18 siRNA (h): sc-75170, GPR18 siRNA (m): sc-75171, GPR18 shRNA Plasmid (h): sc-75170-SH, GPR18 shRNA Plasmid (m): sc-75171-SH, GPR18 shRNA (h) Lentiviral Particles: sc-75170-V and GPR18 shRNA (m) Lentiviral Particles: sc-75171-V.

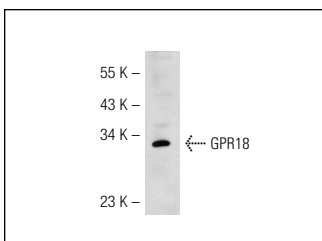
Molecular Weight of GPR18: 38 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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



GPR18 (V-12): sc-79504. Western blot analysis of GPR18 expression in Jurkat 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.

## PROTOCOLS

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