

# GPR92 (N-14): sc-68985

## 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. GPR92 (G protein-coupled receptor 92), also known as LPAR5 (lysophosphatidic acid receptor 5) or GPR93, is a 372 amino acid multi-pass membrane protein that belongs to the G protein-coupled receptor family. Expressed in a variety of tissues, but not present in basal forebrain, thalamus or hippocampus, GPR92 functions as a receptor for lysophosphatidic acid (LPA) and may, therefore, play an important role in mediating diverse cellular activities.

## REFERENCES

1. Lee, D.K., et al. 2001. Discovery and mapping of ten novel G protein-coupled receptor genes. *Gene* 275: 83-91.
2. Lee, C.W., et al. 2006. GPR92 as a new G<sub>12/13</sub> and G<sub>q</sub>-coupled lysophosphatidic acid receptor that increases cAMP, LPA5. *J. Biol. Chem.* 281: 23589-23597.
3. Kotarsky, K., et al. 2006. Lysophosphatidic acid binds to and activates GPR92, a G protein-coupled receptor highly expressed in gastrointestinal lymphocytes. *J. Pharmacol. Exp. Ther.* 318: 619-628.
4. Oh, D.Y., et al. 2008. Identification of farnesyl pyrophosphate and N-arachidonylglycine as endogenous ligands for GPR92. *J. Biol. Chem.* 283: 21054-21064.
5. Amisten, S., et al. 2008. Gene expression profiling for the identification of G protein-coupled receptors in human platelets. *Thromb. Res.* 122: 47-57.
6. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 606926. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: LPAR5 (human) mapping to 12p13.31; Lpar5 (mouse) mapping to 6 F2.

## SOURCE

GPR92 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of GPR92 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-68985 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

GPR92 (N-14) is recommended for detection of GPR92 of mouse 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).

GPR92 (N-14) is also recommended for detection of GPR92 in additional species, including canine.

Suitable for use as control antibody for GPR92 siRNA (h): sc-75194, GPR92 siRNA (m): sc-75195, GPR92 shRNA Plasmid (h): sc-75194-SH, GPR92 shRNA Plasmid (m): sc-75195-SH, GPR92 shRNA (h) Lentiviral Particles: sc-75194-V and GPR92 shRNA (m) Lentiviral Particles: sc-75195-V.

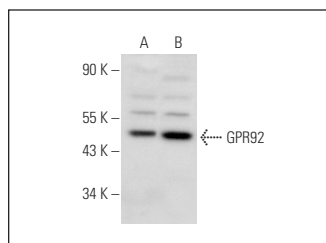
Molecular Weight of GPR92: 41 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181 or K-562 whole cell lysate: sc-2203.

## 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) 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



GPR92 (N-14): sc-68985. Western blot analysis of GPR92 expression in NTERA-2 cl.D1 (A) and K-562 (B) whole cell lysates.

## 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.