

# GPR17 (N-15): sc-74792

## BACKGROUND

G protein-coupled receptor 17, GPR17, also known as uracil nucleotide/cysteinyl leukotriene receptor or P2Y-like receptor (P2YL), is a 367 amino acid member of the G protein-coupled receptor 1 family of proteins. While GPR17 is expressed in kidney, heart and umbilical vein endothelial cells, it is expressed in the highest levels in the brain. Upon brain injury, the extracellular concentrations of nucleotides and cysteinyl leukotrienes (CysLTs), two families of endogenous signaling molecules, increase significantly at the site of damage. In some neurons, GPR17, a membrane receptor for uracil nucleotide and CysLTs, is upregulated as well, infiltrating the lesioned area. GPR17 is thought to play a role in mediating neuronal death, remodeling brain circuitries by microglia and initiating remyelination in damaged neurons. Two named isoforms of GPR17 exist as a result of alternative splicing events.

## REFERENCES

- Lee, D.K., Nguyen, T., Lynch, K.R., Cheng, R., Vanti, W.B., Arkhitko, O., Lewis, T., Evans, J.F., George, S.R. and O'Dowd, B.F. 2001. Discovery and mapping of ten novel G protein-coupled receptor genes. *Gene* 275: 83-91.
- Moro, S. and Jacobson, K.A. 2002. Molecular modeling as a tool to investigate molecular recognition in P2Y receptors. *Curr. Pharm. Des.* 8: 2401-2413.
- Ciana, P., Fumagalli, M., Trincavelli, M.L., Verderio, C., Rosa, P., Lecca, D., Ferrario, S., Parravicini, C., Capra, V., Gelosa, P., Guerrini, U., Belcredito, S., Cimino, M., Sironi, L., Tremoli, E., Rovati, G.E., Martini, C. and Abbraccio, M.P. 2006. The orphan receptor GPR17 identified as a new dual uracil nucleotides/cysteinyl-leukotrienes receptor. *EMBO J.* 25: 4615-4627.

## CHROMOSOMAL LOCATION

Genetic locus: GPR17 (human) mapping to 2q14.3; Gpr17 (mouse) mapping to 18 B1.

## SOURCE

GPR17 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of GPR17 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-74792 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

GPR17 (N-15) is recommended for detection of GPR17 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).

GPR17 (N-15) is also recommended for detection of GPR17 in additional species, including canine.

Suitable for use as control antibody for GPR17 siRNA (h): sc-76030, GPR17 siRNA (m): sc-76031, GPR17 shRNA Plasmid (h): sc-76030-SH, GPR17 shRNA Plasmid (m): sc-76031-SH, GPR17 shRNA (h) Lentiviral Particles: sc-76030-V and GPR17 shRNA (m) Lentiviral Particles: sc-76031-V.

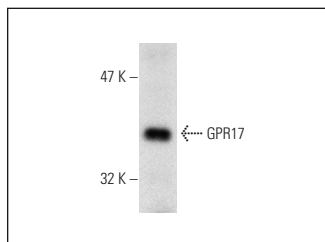
Molecular Weight of GPR17: 38-41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse kidney extract: sc-2255 or rat brain extract: sc-2392.

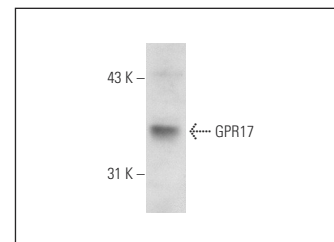
## RECOMMENDED SECONDARY REAGENTS

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



GPR17 (N-15): sc-74792. Western blot analysis of GPR17 expression in rat brain tissue extract.



GPR17 (N-15): sc-74792. Western blot analysis of GPR17 expression in mouse kidney tissue extract.

## RESEARCH USE

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



Try **GPR17 (A-10): sc-514723**, our highly recommended monoclonal alternative to GPR17 (N-15).