

# mGluR-6 (C-18): sc-47149

## BACKGROUND

The mGluR proteins (metabotropic glutamate receptors) are members of the G protein-coupled receptor family and are functionally and pharmacologically distinct from the GluR proteins (ionotropic glutamate receptors). The eight currently known mGluR proteins are mediated by two G proteins with opposing regulation of adenylate cyclase pathways. The activities of mGluR-1 and mGluR-5 are mediated by a G protein that activates a phosphatidylinositol-calcium second messenger system and generates a calcium-activated chloride current. The remainder of the eight subtypes of mGluR have an activity mediated by a G protein that inhibits adenylate cyclase activity. mGluR-6 is expressed in the synapses of bipolar cell dendrites. This receptor is involved in mediating synaptic transmission from rod and cone photoreceptors to other neurons.

## REFERENCES

1. Hashimoto, T., et al. 1997. The whole nucleotide sequence and chromosomal localization of the gene for human metabotropic glutamate receptor subtype 6. *Eur. J. Neurosci.* 9: 1226-1235.
2. Dryja, T.P., et al. 2005. Night blindness and abnormal cone electroretinogram ON responses in patients with mutations in the GRM6 gene encoding mGluR-6. *Proc. Natl. Acad. Sci. USA* 102: 4884-4889.
3. Zeitz, C., et al. 2005. Mutations in GRM6 cause autosomal recessive congenital stationary night blindness with a distinctive scotopic 15-Hz flicker electroretinogram. *Invest. Ophthalmol. Vis. Sci.* 46: 4328-4335.
4. Yang, Z.Q. 2005. Agonists and antagonists for group III metabotropic glutamate receptors 6, 7 and 8. *Curr. Top. Med. Chem.* 5: 913-918.
5. O'Connor, E., et al. 2006. Congenital stationary night blindness associated with mutations in GRM6 encoding glutamate receptor mGluR-6. *Br. J. Ophthalmol.* 90: 653-654.

## CHROMOSOMAL LOCATION

Genetic locus: GRM6 (human) mapping to 5q35.3; Grm6 (mouse) mapping to 11 B1.3.

## SOURCE

mGluR-6 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of mGluR-6 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-47149 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.

## APPLICATIONS

mGluR-6 (C-18) is recommended for detection of mGluR-6 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).

mGluR-6 (C-18) is also recommended for detection of mGluR-6 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for mGluR-6 siRNA (h): sc-61036, mGluR-6 siRNA (m): sc-61037, mGluR-6 shRNA Plasmid (h): sc-61036-SH, mGluR-6 shRNA Plasmid (m): sc-61037-SH, mGluR-6 shRNA (h) Lentiviral Particles: sc-61036-V and mGluR-6 shRNA (m) Lentiviral Particles: sc-61037-V.

Molecular Weight of mGluR-6: 190 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™ 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) 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.

## SELECT PRODUCT CITATIONS

1. Cao, Y., et al. 2008. Targeting of RGS7/Gβ5 to the dendritic tips of ON-bipolar cells is independent of its association with membrane anchor R7BP. *J. Neurosci.* 28: 10443-10449.

## 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.



Try **mGluR-6 (1A11): sc-517076**, our highly recommended monoclonal alternative to mGluR-6 (C-18).