

mGluR-3 (G-18): sc-47138

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-3, which may interact with GRASP, acts as a receptor for glutamate.

REFERENCES

1. Makoff, A., Volpe, F., Lelchuk, R., Harrington, K. and Emson, P. 1997. Molecular characterization and localization of human metabotropic glutamate receptor type 3. *Brain Res. Mol. Brain Res.* 40: 55-63.
2. Kammermeier, P.J. and Yun, J. 2005. Activation of metabotropic glutamate receptor 1 dimers requires glutamate binding in both subunits. *J. Pharmacol. Exp. Ther.* 312: 502-508.
3. Bäckström, P. and Hyttiä, P. 2005. Suppression of alcohol self-administration and cue-induced reinstatement of alcohol seeking by the mGlu2/3 receptor agonist LY379268 and the mGlu8 receptor agonist (S)-3,4-DCPG. *Eur. J. Pharmacol.* 528: 110-108.
4. Pacheco Otalora, L.F., Couoh, J., Shigamoto, R., Zarei, M.M. and Garrido Sanabria, E.R. 2006. Abnormal mGluR-2/-3 expression in the perforant path termination zones and mossy fibers of chronically epileptic rats. *Brain Res.* 1098: 170-185.
5. Yoshimizu, T., Shimazaki, T., Ito, A. and Chaki, S. 2006. An mGluR-2/-3 antagonist, MGS0039, exerts antidepressant and anxiolytic effects in behavioral models in rats. *Psychopharmacology* 186: 587-593.
6. Ohana, L., Barchad, O., Parnas, I. and Parnas, H. 2006. The metabotropic glutamate G protein-coupled receptors mGluR-3 and mGluR-1a are voltage sensitive. *J. Biol. Chem.* 281: 24204-24215.

CHROMOSOMAL LOCATION

Genetic locus: GRM3 (human) mapping to 7q21.11; Grm3 (mouse) mapping to 5 A1.

SOURCE

mGluR-3 (G-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of mGluR-3 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-47138 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

mGluR-3 (G-18) is recommended for detection of mGluR-3 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).

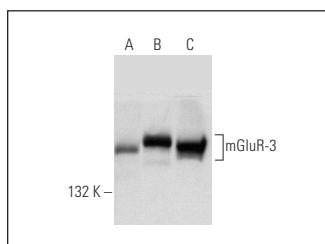
mGluR-3 (G-18) is also recommended for detection of mGluR-3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for mGluR-3 siRNA (h): sc-61030, mGluR-3 siRNA (m): sc-61031, mGluR-3 shRNA Plasmid (h): sc-61030-SH, mGluR-3 shRNA Plasmid (m): sc-61031-SH, mGluR-3 shRNA (h) Lentiviral Particles: sc-61030-V and mGluR-3 shRNA (m) Lentiviral Particles: sc-61031-V.

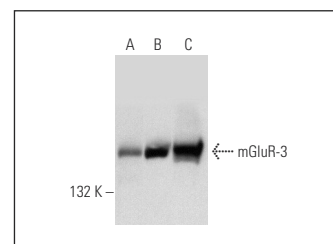
Molecular Weight of mGluR-3: 110/220 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237 or mGluR-3 (h2): 293T Lysate: sc-176300.

DATA



mGluR-3 (G-18): sc-47138. Western blot analysis of mGluR-3 expression in non-transfected 293T: sc-117752 (A), human mGluR-3 transfected 293T: sc-176300 (B) and SK-N-MC (C) whole cell lysates.



mGluR-3 (G-18): sc-47138. Western blot analysis of mGluR-3 expression in non-transfected 293T: sc-117752 (A), human mGluR-3 transfected 293T: sc-176280 (B) and SK-N-MC (C) 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **mGluR-3 (A-10): sc-271899**, our highly recommended monoclonal alternative to mGluR-3 (G-18).