



mGluR-3 (h2): 293T Lysate: sc-176300

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., et al. 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., et al. 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., et al. 2006. An mGluR-2/-3 antagonist, MGS0039, exerts antidepressant and anxiolytic effects in behavioral models in rats. *Psychopharmacology* 186: 587-593.
6. Ohana, L., et al. 2006. The metabotropic glutamate G protein-coupled receptors mGluR-3 and mGluR-1a are voltage sensitive. *J. Biol. Chem.* 281: 24204-24215.
7. Marengo, S., et al. 2006. Effect of metabotropic glutamate receptor 3 genotype on N-acetylaspartate measures in the dorsolateral prefrontal cortex. *Am. J. Psychiatry* 163: 740-742.
8. Bonsi, P., et al. 2006. Striatal metabotropic glutamate receptors as a target for pharmacotherapy in Parkinson's disease. *Amino Acids* 32: 189-195.

CHROMOSOMAL LOCATION

Genetic locus: GRM3 (human) mapping to 7q21.11.

PRODUCT

mGluR-3 (h2): 293T Lysate represents a lysate of human mGluR-3 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

mGluR-3 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive mGluR-3 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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

PROTOCOLS

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