

mGluR-3 (A-10): sc-271899

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 Hyytiä, 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.

CHROMOSOMAL LOCATION

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

SOURCE

mGluR-3 (A-10) is a mouse monoclonal antibody raised against amino acids 496-545 mapping within an internal region of mGluR-3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

mGluR-3 (A-10) is available conjugated to agarose (sc-271899 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271899 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271899 PE), fluorescein (sc-271899 FITC), Alexa Fluor® 488 (sc-271899 AF488), Alexa Fluor® 546 (sc-271899 AF546), Alexa Fluor® 594 (sc-271899 AF594) or Alexa Fluor® 647 (sc-271899 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271899 AF680) or Alexa Fluor® 790 (sc-271899 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

mGluR-3 (A-10) is recommended for detection of mGluR-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

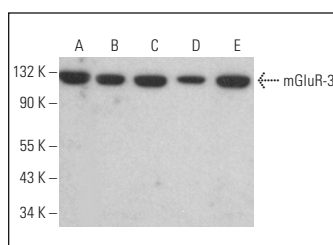
Molecular Weight of mGluR-3: 110/220 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, EOC 20 whole cell lysate: sc-364187 or Neuro-2A whole cell lysate: sc-364185.

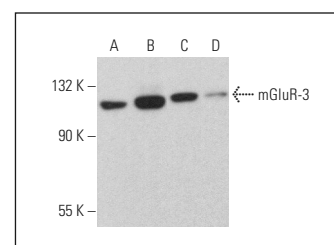
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



mGluR-3 (A-10): sc-271899. Western blot analysis of mGluR-3 expression in Neuro-2A (A), Caki-1 (B), IMR-32 (C), T98G (D) and SH-SY5Y (E) whole cell lysates.



mGluR-3 (A-10): sc-271899. Western blot analysis of mGluR-3 expression in HEK293 (A), Neuro-2A (B) and EOC 20 (C) whole cell lysates and rat brain tissue extract (D).

SELECT PRODUCT CITATIONS

1. Torres-Vega, E., et al. 2017. Netrin-1 receptor antibodies in thymoma-associated neuromyotonia with myasthenia gravis. *Neurology* 88: 1235-1242.

RESEARCH USE

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

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