mGluR-1a/b (1F7): sc-293437



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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-1, which can form a homodimer, acts as a receptor for glutamate. It may also be involved in glutamate activity in the CNS.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GRM1 (human) mapping to 6g24.3.

SOURCE

mGluR-1a/b (1F7) is a mouse monoclonal antibody raised against amino acids 387-486 representing partial length mGluR-1a/b of human origin.

PRODUCT

Each vial contains 100 $\mu g \; lgG_{2b}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

mGluR-1a/b (1F7) is recommended for detection of mGluR-1a/b of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for mGluR-1a/b siRNA (h): sc-61026, mGluR-1a/b shRNA Plasmid (h): sc-61026-SH and mGluR-1a/b shRNA (h) Lentiviral Particles: sc-61026-V.

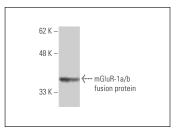
Molecular Weight of mGluR-1a/b nonreduced dimeric form: 260/270 kDa.

Molecular Weight of mGluR-1a/b reduced monomeric form: 135 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM 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).

DATA



mGluR-1a/b (1F7): sc-293437. Western blot analysis of human recombinant mGluR-1a/b fusion protein.

SELECT PRODUCT CITATIONS

1. Chang, J., et al. 2019. Downregulation of RTN1-C attenuates MPP+-induced neuronal injury through inhibition of mGluR5 pathway in SN4741 cells. Brain Res. Bull. 146: 1-6.

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 for detailed protocols and support products.