Human mGluR5 Antibody

Monoclonal Mouse IgG_1 Clone # 464818

Catalog Number: MAB4514

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human mGluR5 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human mGluR1, R2, R3, R4, R7, or R8 is observed.
Source	Monoclonal Mouse IgG_1 Clone # 464818
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human mGluR5 Gln21-Ser509 Accession # P41594
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

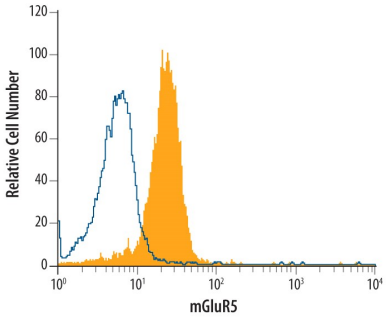
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	Recombinant Human mGluR5
Intracellular Staining by Flow Cytometry	2.5 µg/10^6 cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Intracellular Staining by Flow Cytometry



Detection of mGluR5 in MG-63 Human Cell Line by Flow Cytometry. MG-63 human osteosarcoma cell line was stained with Mouse Anti-Human mGluR5 Monoclonal Antibody (Catalog # MAB4514, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG $F(ab')_2$ Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human metabotropic glutamate receptor 5 (mGluR5; also mGluR5b) is a 150 kDa 7-transmembrane glycoprotein that belongs to group I of the C-family of G-protein coupled receptors. mGluR5 is constitutively expressed and regulates neuronal ion channel activity. Human mGluR5 is 1212 aa in length and contains an extracellular domain (ECD) of 558 amino acids. Through its ECD, mGluR5 either homodimerizes or heterodimerizes with the Ca^{++}-sensor receptor. There is one alternate splice form (mGluR5a) that shows a 32 aa deletion between aa 877-908 in the cytoplasmic tail. Over aa 19-509, human mGluR5 is 98% aa identical to mouse, rat, and dog mGluR5.

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