Human GPR50 Antibody

Monoclonal Mouse IgG_{2A} Clone # 461129

Catalog Number: MAB4645

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GPR50. Stains human GPR50 transfectants but not irrelevant transfectants.
Source	Monoclonal Mouse IgG_{2A} Clone # 461129
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human GPR50 Met1-Val617 Accession # Q13585
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.

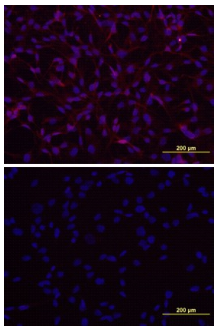
APPLICATIONS

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
Immunocytochemistry	8-25 µg/mL	See Below
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.	

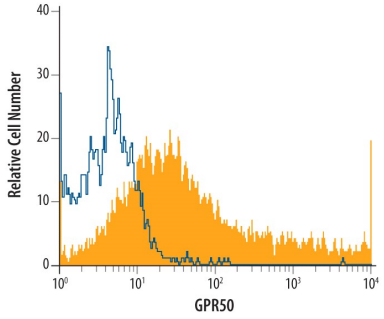
DATA

Immunocytochemistry



GPR50 in A172 Human Cell Line. GPR50 was detected in immersion fixed A172 human glioblastoma cell line using 10 µg/mL Mouse Anti-Human GPR50 Monoclonal Antibody (Catalog # MAB4645) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Intracellular Staining by Flow Cytometry



Detection of GPR50 in A172 Human Cell Line by Flow Cytometry. A172 human glioblastoma cell line was stained with Mouse Anti-Human GPR50 Monoclonal Antibody (Catalog # MAB4645, filled histogram) or isotype control antibody (Catalog # MAB0031, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG $F(ab')_2$ Secondary Antibody (Catalog # F0102B). 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

GPR50, also known as MTR1L, is a non-glycosylated seven-transmembrane G protein-coupled receptor that is related to the melatonin receptors MT1 and MT2. GPR50 is expressed in the hippocampus, hypothalamus, and pituitary and forms 130 kDa homodimers. It heterodimerizes with either MT1 or MT2, resulting in inhibition of MT1 but not MT2 function. An alternately spliced isoform of GPR50 has a 4 aa deletion in the large C-terminal cytoplasmic domain. The presence of this deletion as well as various polymorphisms have been associated with elevated serum triglyceride and HDL levels. The deletion may also be associated with the development of bipolar disorder. Human GPR50 shares approximately 70% amino acid sequence identity with mouse and rat GPR50.

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