

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GPR12 in direct ELISAs.
Source	Monoclonal Mouse IgG ₁ Clone # 584940
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human GPR12 Met1-Val334 Accession # P47775
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
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Flow Cytometry

Detection of GPR12 in HEK293 Human Cell Line Transfected with human GRP12 and eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with (A) Human GRP12 or (B) irrelevant transfectant, and eGFP was stained with Mouse Anti-Human GPR12 Monoclonal Antibody (Catalog # MAB6738) followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). Quadrants were set based on Mouse IgG1 Flow Cytometry Isotype Control (Catalog # MAB002, data not shown). View our protocol for [Staining Membrane-associated Proteins](#).

Immunohistochemistry

GPR12 in Human Brain. GPR12 was detected in immersion fixed paraffin-embedded sections of human brain using Mouse Anti-Human GPR12 Monoclonal Antibody (Catalog # MAB6738) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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. <ul style="list-style-type: none"> ● 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

GPR12 is a 7-transmembrane receptor for sphingosylphosphorylcholine. Human GPR12 and the related GPR3 and GPR6 are all highly expressed on neurons of the central nervous system, while GPR12 is particularly expressed in the limbic system. GPR12 engagement promotes proliferation and maturation of postmitotic neurons through an inhibitory G protein and cAMP signaling pathway. Human GPR12 cDNA encodes 334 amino acids (aa), 89 of which are extracellular; these share 86% aa identity with mouse and rat GPR12.