

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human mGluR4 in direct ELISAs. In direct ELISAs, approximately 40% cross-reactivity with recombinant human (rh) mGluR7 and rhmGluR8 is observed, and less than 8% cross-reactivity with rhmGluR3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human mGluR4 Lys33-Ser518 Accession # Q14833
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	2.5 µg/10 ⁶ cells	See Below
Immunohistochemistry	5-15 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Flow Cytometry</p>	<p>Detection of mGluR4 in HT1080 Human Cell Line by Flow Cytometry. HT1080 human fibrosarcoma cell line was stained with Sheep Anti-Human mGluR4 Affinity-purified Polyclonal Antibody (Catalog # AF7387, filled histogram) or control antibody (Catalog # 5-001-A, open histogram), followed by Phycoerythrin-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # F0126).</p>	<p>Immunohistochemistry</p>	<p>mGluR4 in Human Endothelial Cells. mGluR4 was detected in immersion fixed paraffin-embedded sections of human brainstem (medulla) using Sheep Anti-Human mGluR4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7387) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to endothelial cells in vasculature. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>
------------------------------	---	------------------------------------	---

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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

Metabotropic glutamate receptor 4 (mGluR4) is a 95-110 kDa Group III mGluR member of the Class C, GPCR 3 family of proteins. The mGluR family of receptors are 7-transmembrane (TM), non-ion channel glutamate-binding molecules that are linked to adenylylase. mGluR4 is widely expressed, being found on/in multiple cell types, including colonic, breast, urinary and skin epithelium. It is also found on neurons where it is located presynaptically and regulates neurotransmitter release. In general, mGluR4 activation results in a slowing of either glutamine or GABA release. However, in discrete areas, it actually facilitates glutamine release. Mature human mGluR4 is an 880 amino acid (aa) 7-TM molecule (aa 33-912). It contains a 555 aa N-terminal extracellular region (aa 33-587), plus a 65 aa C-terminal cytoplasmic domain. mGluR4 potentially forms homodimers, and is reported to heterodimerize with both mGluR2 and mGluR8. Based on rodent, there is one 68 kDa isoform that is found in taste buds and shows an alternative start site at Met309. Two additional potential splice variants contain a second alternative start site at Met209, and an Asp substitution for aa 343-390, respectively. It is uncertain if human possesses a mGluR4b found in rodent. Over aa 1-518, human mGluR4 shares 96% aa identity with mouse mGluR4.