

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GPR158 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 1027651
Purification	Protein A or G purified
Immunogen	Human embryonic kidney cell HEK293-derived human GPR158 protein Ala24-Gln411 Accession # Q5T848
Conjugate	Alexa Fluor Plus 405 Excitation Wavelength: 404 nm Emission Wavelength: 455 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

DATA

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

G-protein coupled receptor 158 (GPR158) is a receptor belonging to the Class C GPCR family. It lacks the extracellular Venus flytrap module characteristic of the known members of that family and instead contains two other elements that are not typical of the class: a calcium-binding EGF-like domain and a leucine repeat region (1, 2). The mature extracellular domain of human GPR158 contains 393 amino acids (aa) and shares 89% identity with both mouse and rat GPR158. GPR158 is expressed at the highest level in the brain, but also in a variety of other tissues including retina, spleen, liver and lung (3). GPR158 was originally identified in functional screens linked with biological stress and has been implicated in the osteocalcin effect on cognitive processes in the brain (4, 5), and glaucoma and cancer in the periphery (4, 6).

References:

- Jingami, H. *et al.* (2003) *Curr. Opin. Neurobiol.* **13**:271.
- Bjarnadóttir, T.K *et al.* (2005) *Gene.* **362**:70.
- Orlandi, C. *et al.* (2012) *J. Cell Biol.* **197**:711.
- Itakura, T. *et al.* (2019) *J. Ocul. Pharmacol. Ther.* **35**:203.
- Khramian, L. *et al.* (2017) *J. Exp. Med.* **214**:2859.
- Fenner, A. (2015) *Nat. Rev. Urol.* **12**:182.

PRODUCT SPECIFIC NOTICES

This product is provided under an intellectual property license from Life Technologies Corporation. The transfer of this product is conditioned on the buyer using the purchased product solely in research conducted by the buyer, excluding contract research or any fee for service research, and the buyer must not (1) use this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; or (c) manufacturing or quality assurance or quality control, and/or (2) sell or transfer this product or its components for resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.