



Monoclonal Anti-human GPR37 Antibody

ORDERING INFORMATION

Catalog Number: MAB4450

Clone: 436923

Lot Number: ZZS01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human GPR37

Immunogen: NS0 cells transfected with human GPR37

Ig class: mouse IgG_{2A}

Recommended Application:
Flow cytometry

Background

GPR37 (G-protein coupled receptor 37), also called ETBR-LP-1 (endothelin B receptor-like protein 1) or PAELR (Parkin-associated endothelin receptor-like receptor) is a 613 aa, ~55 kDa orphan 7-transmembrane receptor. It is mainly expressed in neuronal cells, particularly in cerebellar Purkinje cells and the hippocampus. It is a substrate of the E3 ubiquitin ligase, parkin, which is upregulated during endoplasmic reticulum stress. In a juvenile form of Parkinson's disease, GPR37 accumulates, contributing to stress-induced neuronal cell death. The extracellular portions of human and mouse GPR37 share 68% aa identity.

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with NS0 cells transfected with human GPR37 (Accession # O15354). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.2 mL of PBS is used, the antibody concentration will be 500 µg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

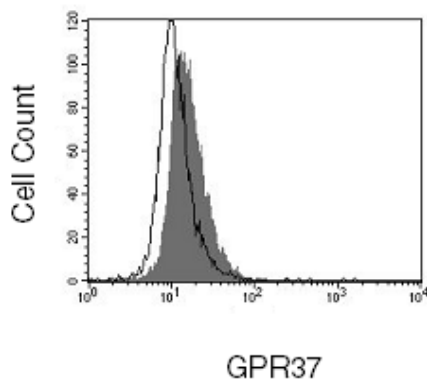
Specificity

This antibody detects human GPR37 transfected cells but not irrelevant transfectants.

Application

Flow cytometry - This antibody was validated for flow cytometry using A172 cells. For intracellular staining to detect GPR37, cells must first be fixed and permeabilized using 4% paraformaldehyde and 0.1% saponin in PBS. Dilute this antibody to 25 µg/mL and add 10 µL of the diluted solution to 1 - 5 x 10⁶ cells in a total reaction volume not exceeding 200 µL. The binding of unlabeled monoclonal antibodies may be visualized by adding a secondary developing reagent such as anti-mouse IgG conjugated to a fluorochrome.

Optimal dilutions should be determined by each laboratory for each application.



A172 cells were stained with anti-GPR37 (R&D Systems, Cat. # MAB4450) or isotype control (R&D Systems, Cat. # MAB003, open histogram) followed by PE-conjugated anti-mouse antibody (R&D Systems, Cat. # F0102B).

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