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GPR65 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP9501b

Specification

GPR65 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q8IYL9

GPR65 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 8477

Other Names
Psychosine receptor, G-protein coupled receptor 65, T-cell death-associated gene 8 protein, GPR65, TDAG8

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GPR65 Antibody (C-term) Blocking Peptide - Protein Information

Name GPR65 {ECO:0000303|PubMed:27287411, ECO:0000312|HGNC:HGNC:4517}

Function
Proton-sensing G-protein coupled receptor activated by extracellular pH, which is required to monitor pH changes and generate adaptive reactions (PubMed:15326175, PubMed:15618224, PubMed:20855608, PubMed:33478938, PubMed:37722051, PubMed:39753132). Activated by an optimal pH of 7.4 (PubMed:39753132). Ligand binding causes a conformation change that triggers signaling via guanine nucleotide- binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase (PubMed:15326175, PubMed:15618224, PubMed:37722051, PubMed:39753132). GPR65 is mainly coupled to G(s) G proteins and mediates activation of adenylate cyclase activity

(PubMed:15618224, PubMed:37722051, PubMed:39753132). May also act as a receptor for the glycosphingolipid psychosine (PSY) and several related glycosphingolipids (PubMed:11309421, PubMed:15326175). Plays a role in immune response by maintaining lysosome function and regulating T-cell metabolism (PubMed:27287411). Acts as a regulator of inflammation by mediating pH-sensing of extracellular acidification which takes place in inflamed tissues: activation regulates endo-lysosomal function of immune cells and T-cell metabolism (By similarity). Constitutively active in endosomes and stimulates adenylate cyclase production from endosomes independently from extracellular pH changes (PubMed:39753132).

Cellular Location
Cell membrane; Multi-pass membrane protein. Early endosome membrane; Multi-pass membrane protein. Late endosome membrane; Multi-pass membrane protein. Note=Internalizes and localizes to early and late endosomes, from where GPR65 signals at steady state, irrespective of extracellular pH (PubMed:39753132). Changes in extracellular pH may relocalize receptor signaling to the cell membrane (PubMed:39753132).

Tissue Location
Predominantly expressed in thymus, spleen, lymph nodes, small intestine, lung, placenta and peripheral blood leukocytes

GPR65 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

GPR65 Antibody (C-term) Blocking Peptide - Images

GPR65 Antibody (C-term) Blocking Peptide - Background

Receptor for the glycosphingolipid psychosine (PSY) and several related glycosphingolipids. May have a role in activation-induced cell death or differentiation of T-cells.

GPR65 Antibody (C-term) Blocking Peptide - References

Mogi, C., et al. J. Immunol. 182(5):3243-3251(2009)Ishii, S., et al. J. Biol. Chem. 280(10):9083-9087(2005)Radu, C.G., et al. Proc. Natl. Acad. Sci. U.S.A. 102(5):1632-1637(2005)