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GPR65 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI15156

Product Information

Application	WB
Primary Accession	Q8IYL9
Other Accession	NM_003608, NP_003599
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Dog, Horse
Predicted	Human, Mouse, Rat, Rabbit, Pig, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	39333

Additional Information

Gene ID	8477
Alias Symbol	TDAG8, hTDAG8
Other Names	Psychosine receptor, G-protein coupled receptor 65, T-cell death-associated gene 8 protein, GPR65, TDAG8
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-GPR65 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	GPR65 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

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, PubMed:40211064). 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).

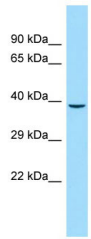
Tissue Location

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

References

Kyaw H.,et al.DNA Cell Biol. 17:493-500(1998).
Heilig R.,et al.Nature 421:601-607(2003).
Im D.-S.,et al.J. Cell Biol. 153:429-434(2001).

Images



WB Suggested Anti-GPR65 Antibody Titration: 1.0 µg/ml
Positive Control: U937 Whole Cell

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.