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GPR35 Antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI15134

Product Information

Application	WB
Primary Accession	Q9HC97
Other Accession	NM_001195381, NP_001182310
Reactivity	Human, Dog, Horse
Predicted	Human, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34072

Additional Information

Gene ID	2859
Other Names	G-protein coupled receptor 35, Kynurenic acid receptor, KYNA receptor, GPR35
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-GPR35 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	GPR35 Antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

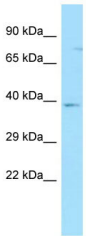
Name	GPR35 {ECO:0000303|PubMed:9479505, ECO:0000312|HGNC:HGNC:4492}
Function	G-protein coupled receptor that binds to several ligands including the tryptophan metabolite kynurenic acid (KYNA), lysophosphatidic acid (LPA) or 5-hydroxyindoleacetic acid (5-HIAA) with high affinity, leading to rapid and transient activation of numerous intracellular signaling pathways (PubMed:16754668, PubMed:19473985, PubMed:20361937, PubMed:24347166, PubMed:35148838, PubMed:35926043). 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:19473985, PubMed:35926043). GPR35 can couple with G(i)/G(o)- or G(12)/G(13) classes of G alpha proteins depending on the context, mediating the inhibition of

	adenylate cyclase or activation Rho small GTPases, respectively (PubMed:19473985, PubMed:35926043, PubMed:36543774). KYNA-binding promotes monocyte adhesion to vascular endothelium under flow conditions, leading to G(i)/GNAI1 activation and inhibition of adenylate cyclase (PubMed:19473985). Involved in cardioprotection during ischemia by promoting mitochondrial remodeling: following KYNA-binding and G(i)/GNAI1 activation, GPR35 is internalized to the outer mitochondrial membrane, where it inhibits mitochondrial adenylate cyclase (ADCY10), allowing ATPIF1 to repress ATP synthase activity (PubMed:35926043). Stimulates lipid metabolism, thermogenic and anti-inflammatory gene expression in adipose tissue once activated by KYNA (By similarity). Plays a role in neutrophil recruitment to sites of inflammation and bacterial clearance through the major serotonin metabolite 5-HIAA that acts as a physiological ligand (PubMed:35148838). In macrophages, activation by lysophosphatidic acid promotes GPR35-induced signaling with a distinct transcriptional profile characterized by TNF production associated with ERK and NF- kappa-B activation (By similarity). In turn, induces chemotaxis of macrophages (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein. Mitochondrion outer membrane; Multi-pass membrane protein. Note=Internalized to the cytoplasm after exposure to kynurenic acid (PubMed:16754668). Translocates to the outer mitochondrial membrane in response to ischemia (PubMed:35926043)
Tissue Location	Predominantly expressed in immune and gastrointestinal tissues.

References

O'Dowd B.F.,et al.Genomics 47:310-313(1998).
Horikawa Y.,et al.Nat. Genet. 26:163-175(2000).
Warren C.N.,et al.Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.

Images



WB Suggested Anti-GPR35 Antibody Titration: 1.0 µg/ml
Positive Control: MCF7 Whole Cell