10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-GPR35 Antibody (Cytoplasmic Domain)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17468

Product Information

Application	IHC-P, ICC
Primary Accession	Q9HC97
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34072
Concentration (mg/ml)	1 mg/ml

Additional Information

Gene ID	2859
Alias Symbol	GPR35
Other Names	GPR35, KYNA receptor, Kynurenic acid receptor, G protein-coupled receptor 35, G-protein coupled receptor 35
Target/Specificity	Human GPR35. BLAST analysis of the peptide immunogen showed no homology with other human proteins.
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-GPR35 Antibody (Cytoplasmic Domain) 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.
Volume	Array

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