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Anti-GPR35 Antibody (Cytoplasmic Domain)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17468

Specification

Anti-GPR35 Antibody (Cytoplasmic Domain) - Product Information

Application	**IHC-P, ICC**
Primary Accession	Q9HC97
Predicted	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**34072**
Dilution	**IHC-P~~N/A** **ICC~~N/A**

Anti-GPR35 Antibody (Cytoplasmic Domain) - 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.

Anti-GPR35 Antibody (Cytoplasmic Domain) - 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.

Anti-GPR35 Antibody (Cytoplasmic Domain) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-GPR35 Antibody (Cytoplasmic Domain) - Images