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GPR142 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11260a

Product Information

Application	WB, FC, E
Primary Accession	Q7Z601
Other Accession	NP_861455.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB28809
Calculated MW	51106
Antigen Region	86-114

Additional Information

Gene ID	350383
Other Names	Probable G-protein coupled receptor 142, G-protein coupled receptor PGR2, GPR142, PGR2
Target/Specificity	This GPR142 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 86-114 amino acids from the N-terminal region of human GPR142.
Dilution	WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GPR142 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GPR142 (HGNC:20088)
Function	Highly selective G protein-coupled receptor for aromatic amino acids specifically L-Tryptophan (L-Trp) and L-Phenylalanine (L- Phe), with L-Trp being the most potent and efficacious agonist (PubMed:27104960,

PubMed:27322810). GPR142 agonists triggers the activation of both GNAQ/G(q) and GNAI1/G(i)-coupled signaling pathways (PubMed:27104960). L-Trp stimulates glucose-induced insulin secretion and triggers G(q)-mediated signaling (By similarity). GPR142 appears to have a role as a sensor of aromatic essential amino acids controlling the secretion of both insulin in the pancreas and other gastrointestinal hormones including glucagon but also CCK and incretin in the gastrointestinal-tract, contributing to the control of glucose homeostasis by coordinating pancreatic and gut hormone secretion (By similarity).

Cellular Location Cell membrane; Multi-pass membrane protein

Tissue Location Expressed mainly in pancreatic islet and enteroendocrine cells (PubMed:30472415). Expressed in the central nervous system, most abundantly in the ventrolateral region of caudate putamen, the habenular nucleus, the zona incerta, and the medial mammillary nucleus.

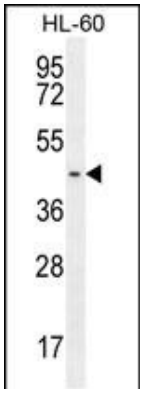
Background

GPR142 is a member of the rhodopsin family of G protein-coupled receptors (GPRs) (Fredriksson et al., 2003 [PubMed 14623098]).

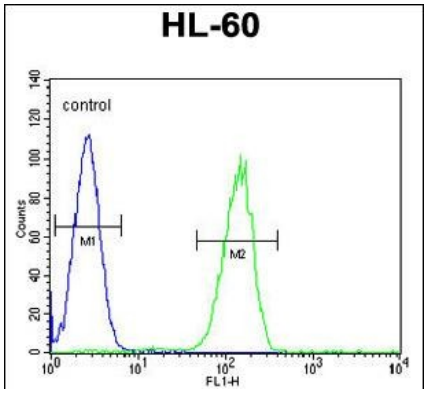
References

Matsuo, A., et al. Biochem. Biophys. Res. Commun. 331(1):363-369(2005)
Fredriksson, R., et al. FEBS Lett. 554(3):381-388(2003)
Vassilatis, D.K., et al. Proc. Natl. Acad. Sci. U.S.A. 100(8):4903-4908(2003)

Images



GPR142 Antibody (N-term) (Cat. #AP11260a) western blot analysis in HL-60 cell line lysates (35ug/lane).This demonstrates the GPR142 antibody detected the GPR142 protein (arrow).



GPR142 Antibody (N-term) (Cat. #AP11260a) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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