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GPR84 Rabbit pAb

Catalog # AP98610

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9NQS5
Other Accession	Q9NQS5
Reactivity	Human, Mouse, Rabbit
Predicted	Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	43705
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GPCR EX33 protein
Epitope Specificity	21-120/369
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	G protein-coupled receptors (GPCRs), also designated seven transmembrane (7TM) receptors and heptahelical receptors, are a protein family which interact with G proteins (heterotrimeric GTPases) to synthesize intracellular second messengers such as diacylglycerol, cyclic AMP, inositol phosphates, and calcium ions. Their diverse biological functions range from vision and olfaction to neuronal and endocrine signaling and are involved in many pathological conditions. G protein receptor 84 (GPR84), a member of the GCPR 1 family, is an orphan GCPR expressed in bone marrow, brain, heart, muscle, colon, thymus, spleen, kidney, liver, placenta, intestine, lung and peripheral blood leukocytes. In activated T cells, GPR84 regulates early interleukin-4 (IL-4) gene expression

Additional Information

Gene ID	53831
Other Names	GPR84_HUMAN; GPR84; Inflammation-related G-protein coupled receptor EX33; EX33; GPCR4; G protein-coupled receptor 84
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 □g/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	GPR84
Synonyms	EX33
Function	G protein-coupled receptor that responds endogenously to dietary fatty acids or nutrient, specifically medium-chain free fatty acid (FFA) with carbon chain lengths of C9 to C14. Capric acid (C10:0), undecanoic acid (C11:0) and lauric acid (C12:0) are the most potent agonists (PubMed:16966319). In immune cells, functions as a pro- inflammatory receptor via 6-OAU and promotes the expression of pro- inflammatory mediators such as TNFalpha, IL-6 and IL-12B as well as stimulating chemotactic responses through activation of signaling mediators AKT, ERK and NF-kappa-B (By similarity). In addition, triggers increased bacterial adhesion and phagocytosis in macrophages and regulates pro-inflammatory function via enhancing NLRP3 inflammasome activation (By similarity). Also plays an important role in inflammation by modulating neutrophil functions (By similarity). Mechanistically, promotes neutrophil chemotaxis, reactive oxygen species (ROS) production and degranulation via LYN-AKT/ERK pathway (By similarity). To regulate ROS, communicates with the two formyl peptide receptors FPR2 and FPR1 to control the NADPH oxidase activity in neutrophils (PubMed:33789297).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed predominantly in hematopoietic tissues. High levels detected in the bone marrow and lower levels in the peripheral leukocytes and lung. Also expressed in brain, heart, muscle, colon, thymus, spleen, kidney, liver, placenta and intestine. Within the leukocyte population expression is higher in neutrophils and eosinophils relative to T- or B-lymphocytes

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