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GPR84 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17390c

Product Information

Application	WB, E
Primary Accession	Q9NQS5
Other Accession	NP_065103.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36053
Calculated MW	43705
Antigen Region	265-293

Additional Information

Gene ID	53831
Other Names	G-protein coupled receptor 84, Inflammation-related G-protein coupled receptor EX33, GPR84, EX33
Target/Specificity	This GPR84 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 265-293 amino acids from the Central region of human GPR84.
Dilution	WB~~1:1000 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	GPR84 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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

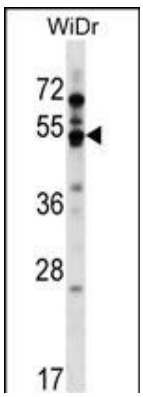
Background

Receptor for 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. Not activated by short-chain and long-chain saturated and unsaturated FFAs. Activation by medium-chain free fatty acid is coupled to a pertussis toxin sensitive G(i/o) protein pathway. May have important roles in processes from fatty acid metabolism to regulation of the immune system.

References

Takeda, S., et al. FEBS Lett. 520 (1-3), 97-101 (2002) :
Yousefi, S., et al. J. Leukoc. Biol. 69(6):1045-1052(2001)
Wittenberger, T., et al. J. Mol. Biol. 307(3):799-813(2001)

Images



GPR84 Antibody (Center) (Cat. #AP17390c) western blot analysis in WiDr cell line lysates (35ug/lane).This demonstrates the GPR84 antibody detected the GPR84 protein (arrow).

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