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GPR84 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP17390c

Specification

GPR84 Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q9NQS5

GPR84 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 53831

Other Names
G-protein coupled receptor 84, Inflammation-related G-protein coupled receptor EX33, GPR84, EX33

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GPR84 Antibody (Center) Blocking Peptide - 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). Plays also 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, splen, kidney, liver, placenta and intestine. Within the leukocyte population expression is higher in neutrophils and eosinophils relative to T- or B-lymphocytes

GPR84 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

GPR84 Antibody (Center) Blocking Peptide - Images

GPR84 Antibody (Center) Blocking Peptide - 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.

GPR84 Antibody (Center) Blocking Peptide - 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)