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GPR84 Antibody (Cytoplasmic Domain)

Rabbit Polyclonal Antibody
Catalog # ALS10097

Specification

GPR84 Antibody (Cytoplasmic Domain) - Product Information

Application	**IHC-P, E**
Primary Accession	Q9NQS5
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**44kDa KDa**
Dilution	**IHC-P~~N/A** **E~~N/A**

GPR84 Antibody (Cytoplasmic Domain) - Additional Information

Gene ID 53831

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

Target/Specificity
Human GPR84. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

Precautions
GPR84 Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

GPR84 Antibody (Cytoplasmic Domain) - 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

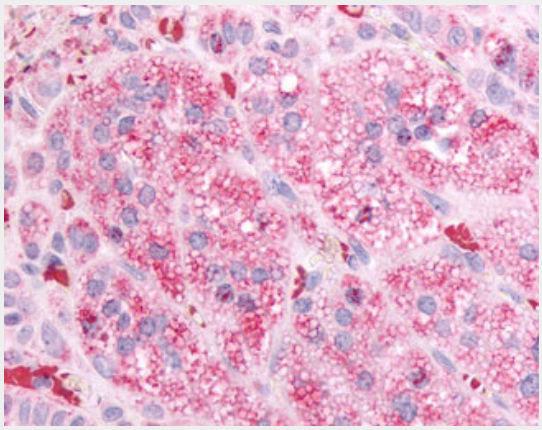
Volume
50 µl

GPR84 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

GPR84 Antibody (Cytoplasmic Domain) - Images



Anti-GPR84 antibody ALS10097 IHC of human adrenal.

GPR84 Antibody (Cytoplasmic Domain) - 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 (Cytoplasmic Domain) - References

Yousefi S.,et al.J. Leukoc. Biol. 69:1045-1052(2001).
Wittenberger T.,et al.J. Mol. Biol. 307:799-813(2001).
Kaighin V.A.,et al.Submitted (OCT-2008) to the EMBL/GenBank/DDBJ databases.
Takeda S.,et al.FEBS Lett. 520:97-101(2002).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.