

Rabbit anti-Human GPR43 Polyclonal Antibody | anti-GPR43 antibody

GPR43 Antibody

CATALOG # AAA323569	HOST Rabbit	REACTIVITY Human	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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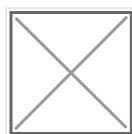
PRODUCT SYNONYMS

GPR43; Polyclonal Antibody; GPR43 Antibody; Fatty acid receptor 2; FFA2R; Ffar2; FFAR2_HUMAN; free fatty acid activated receptor 2; Free fatty acid receptor 2; G protein coupled receptor 43; G protein-coupled receptor 43; G-protein coupled receptor 43; GPR 43; anti-GPR43 antibody

PRODUCT SPECIFICATIONS

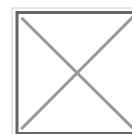
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	GPR43 antibody detects endogenous levels of total GPR43
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	330
Applicable Applications for anti-GPR43 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide
Subcellular Location	Cell Membrane
Tissue Specificity	Expressed at relatively high levels in peripheral blood leukocytes and, to lesser extent, in spleen.
Conjugation	Unconjugated

IMAGES



IHC (Immunohistochemistry)

AAA323569 at 1/100 staining Human liver cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of GPR43 expression in Human fetal liver lysate, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-GPR43 antibody	Description: Receptor for short chain fatty acids through a G(i)-protein-mediated inhibition of adenylyl cyclase and elevation of intracellular calcium. The rank order of potency for agonists of this receptor is acetate= propionate = butyrate > pentanoate = formate. Function: G protein-coupled receptor that is activated by a major product of dietary fiber digestion, the short chain fatty acids (SCFAs), and that plays a role in the regulation of whole-body energy homeostasis and in intestinal immunity. In omnivorous mammals, the short chain fatty acids acetate, propionate and butyrate are produced primarily by the gut microbiome that metabolizes dietary fibers. SCFAs serve as a source of energy but also act as signaling molecules. That G protein-coupled receptor is probably coupled to the pertussis toxin-sensitive, G(i/o)-alpha family of G proteins but also to the Gq family (PubMed:12496283, PubMed:12711604, PubMed:23589301). Its activation results in the formation of inositol 1, 4, 5-trisphosphate, the mobilization of intracellular calcium, the phosphorylation of the MAPK3/ERK1 and MAPK1/ERK2 kinases and the inhibition of intracellular cAMP accumulation. May play a role in glucose homeostasis by regulating the secretion of GLP-1, in response to short-chain fatty acids accumulating in the intestine. May also regulate the production of LEP/Leptin, a hormone acting on the central nervous system to inhibit food intake. Finally, may also regulate whole-body energy homeostasis through adipogenesis regulating both differentiation and lipid storage of adipocytes. In parallel to its role in energy homeostasis, may also mediate the activation of the inflammatory and immune responses by SCFA in the intestine, regulating the rapid production of chemokines and cytokines. May also play a role in the resolution of the inflammatory response and control chemotaxis in neutrophils. In addition to SCFAs, may also be activated by the extracellular lectin FCN1 in a process leading to activation of monocytes and inducing the secretion of interleukin-8/IL-8 in response to the presence of microbes (PubMed:21037097). Among SCFAs, the fatty acids containing less than 6 carbons, the most potent activators are probably acetate, propionate and butyrate (PubMed:12496283, PubMed:12711604). Exhibits a SCFA-independent constitutive G protein-coupled receptor activity (PubMed:23066016). Subunit Structure: Interacts with FCN1 (via Fibrinogen C-terminal domain). Similarity: Belongs to the G-protein coupled receptor 1 family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4885333
NCBI GeneID	2867
NCBI Accession #	NP_005297.1
NCBI GenBank Nucleotide #	NM_005306.2
UniProt Accession #	O15552; Q4VAZ3; Q4VAZ5; Q4VBL5; B0M0J9
Molecular Weight	Observed: 37 kDa Predicted: 38 kDa
NCBI Official Full Name	free fatty acid receptor 2
NCBI Official Synonym Full Names	free fatty acid receptor 2
NCBI Official Symbol	FFAR2
NCBI Official Synonym Symbols	FFA2R; GPR43
NCBI Protein Information	free fatty acid receptor 2
UniProt Protein Name	Free fatty acid receptor 2
UniProt Gene Name	FFAR2
UniProt Synonym Gene Names	FFA2; GPCR43; GPR43

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.