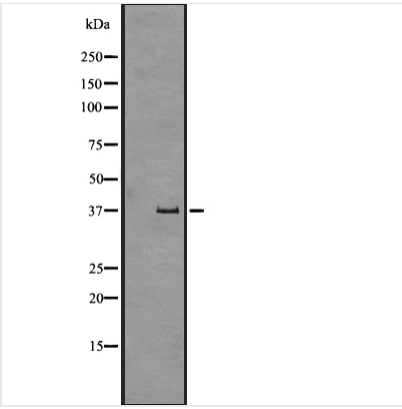
GPR43 Antibody – Rabbit Polyclonal

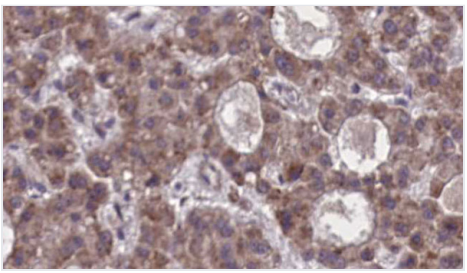
PRODUCT OVERVIEW

Product Name	GPR43, Polyclonal Antibody
Full Product Name	GPR43 Antibody
Product Gene Name	anti-GPR43 antibody
Product Synonym Gene Name	FFAR2
Product Synonym Names	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; GPR43
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Concentration	1mg/ml (lot specific)
Specificity	GPR43 antibody detects endogenous levels of total GPR43
Antibody/Peptide Pairs	GPR43 peptide (MBS9622977) is used for blocking the activity of GPR43 antibody (MBS9604260)
Molecular Weight	Observed: 37 kDa Predicted: 38 kDa
3D Structure	ModBase 3D Structure for O15552
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
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
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-GPR43 antibody	Western Blot (WB), Immunohistochemistry (IHC), ELISA (EIA)
Application Notes for anti-GPR43 antibody	WB: 1:500-1:2000 IHC: 1:50-1:200

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.
Other Notes	Small volumes of anti-GPR43 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GPR43 purchase	MBS9604260 is an antibody targeting GPR43. Also known as GPR43 Antibody. Reactive in Human. Host: Rabbit.



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



Immunohistochemistry (IHC) of anti-GPR43 antibody
MBS9604260 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.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GPR43. It may not necessarily be applicable to this product.

NCBI GI #	4885333
NCBI GeneID	2867
NCBI Accession #	NP_005297.1
UniProt Primary Accession #	O15552
UniProt Secondary Accession #	Q4VAZ3; Q4VAZ5; Q4VBL5; B0M0J9
UniProt Related Accession #	O15552

GenBank Nucleotide #	NM_005306.2
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
UniProt Protein Name	Free fatty acid receptor 2
UniProt Synonym Protein Names	G-protein coupled receptor 43
UniProt Gene Name	FFAR2
UniProt Synonym Gene Names	FFA2; GPCR43; GPR43
NCBI Protein Information	free fatty acid receptor 2
NCBI Summary for GPR43	This gene encodes a member of the GP40 family of G protein-coupled receptors that are clustered together on chromosome 19. The encoded protein is a receptor for short chain free fatty acids and may be involved in the inflammatory response and in regulating lipid plasma levels. [provided by RefSeq, Apr 2009]
UniProt Comments for GPR43	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).
Research Articles on GPR43	**1.** Data suggest that the free fatty acid receptor 2 (FFA2/GPR43 receptor) plays an integral role in survival during and after sepsis.
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