

Rabbit anti-Human GPR41 Polyclonal Antibody | anti-GPR41 antibody

GPR41 Antibody

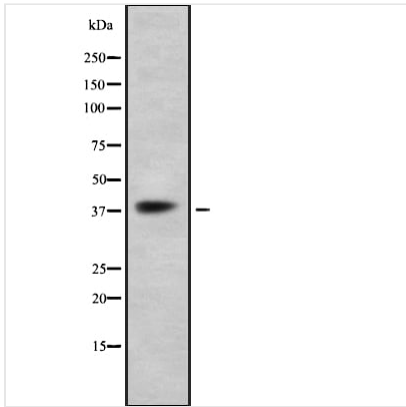
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA322528	Rabbit	Human	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

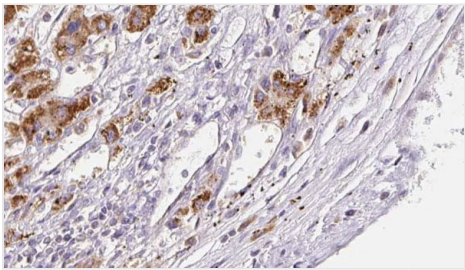
GPR41; Polyclonal Antibody; GPR41 Antibody; FFA3R; Ffar3; FFAR3_HUMAN; Free fatty acid receptor 3; G protein coupled receptor 41; G-protein coupled receptor 41; gpcr41; gpr42; anti-GPR41 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	IgG
Specificity	GPR41 antibody detects endogenous levels of total GPR41
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	346
Applicable Applications for anti-GPR41 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human GPR41
Subcellular Location	Cell Membrane
Tissue Specificity	Highest level in adipose tissue, and lower expression across all tissues tested. Expressed in sympathetic ganglia.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



WB (Western Blot)
Western blot analysis GPR41 using K562 whole cell lysates



IHC (Immunohistochemistry)
AAA322528 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 INFORMATION

Related Product Information for anti-GPR41 antibody	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. 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 (PubMed:12711604). Activated by SCFAs and by beta-hydroxybutyrate, a ketone body produced by the liver upon starvation, it inhibits N-type calcium channels and modulates the activity of sympathetic neurons through a signaling cascade involving the beta and gamma subunits of its coupled G protein, phospholipase C and MAP kinases. Thereby, it may regulate energy expenditure through the control of the sympathetic nervous system that controls for instance heart rate. Upon activation by SCFAs accumulating in the intestine, it may also signal to the brain via neural circuits which in turn would regulate intestinal gluconeogenesis. May also control the production of hormones involved in whole-body energy homeostasis. May for instance, regulate blood pressure through renin secretion. May also regulate secretion of the PYY peptide by enteroendocrine cells and control gut motility, intestinal transit rate, and the harvesting of energy from SCFAs produced by gut microbiota. May also indirectly regulate the production of LEP/Leptin, a hormone acting on the CNS to inhibit food intake, in response to the presence of short-chain fatty acids in the intestine. Finally, may also play a role in glucose homeostasis. Besides its role in energy homeostasis, may play a role in intestinal immunity. May mediate the activation of the inflammatory and immune response by SCFAs in the gut, regulating the rapid production of chemokines and cytokines by intestinal epithelial cells. Among SCFAs, the fatty acids containing less than 6 carbons, the most potent activators are probably propionate, butyrate and pentanoate while acetate is a poor activator (PubMed:12496283, PubMed:12711604). Similarity: Belongs to the G-protein coupled receptor 1 family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4885329
NCBI GeneID	2865
NCBI Accession #	NP_005295.1
NCBI GenBank Nucleotide #	NM_005304.4
UniProt Accession #	O14843; Q14CM7; B2RWM8
Molecular Weight	Observed: 38 kDa Predicted: 39 kDa
NCBI Official Full Name	free fatty acid receptor 3
NCBI Official Synonym Full Names	free fatty acid receptor 3

NCBI Official Symbol	FFAR3
NCBI Official Synonym Symbols	FFA3R; GPR41; GPR42
NCBI Protein Information	free fatty acid receptor 3
UniProt Protein Name	Free fatty acid receptor 3
UniProt Gene Name	FFAR3
UniProt Synonym Gene Names	GPR41

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.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/gpr41-antibody-immunohistochemistry-western-blot-elisa/322528>