

Datasheet for ABIN1713521
anti-FFAR2 antibody (AA 41-140)[Go to Product page](#)

2 Images

1 Publication

Overview

Quantity:	100 µL
Target:	FFAR2
Binding Specificity:	AA 41-140
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This FFAR2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human GPR43
Isotype:	IgG
Cross-Reactivity:	Mouse, Rat
Predicted Reactivity:	Human
Purification:	Purified by Protein A.

Target Details

Target:	FFAR2
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Target Details

Alternative Name:	GPR43 (FFAR2 Products)
Background:	<p>Synonyms: FFA2R, GPR43, Free fatty acid receptor 2, G-protein coupled receptor 43, FFAR2, FFA2, GPCR43</p> <p>Background: 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).</p>

Gene ID:	2867
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UniProt:	O15552
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Application Details

Application Notes:	WB 1:300-5000
	ELISA 1:500-1000
	FCM 1:20-100
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200

Application Details

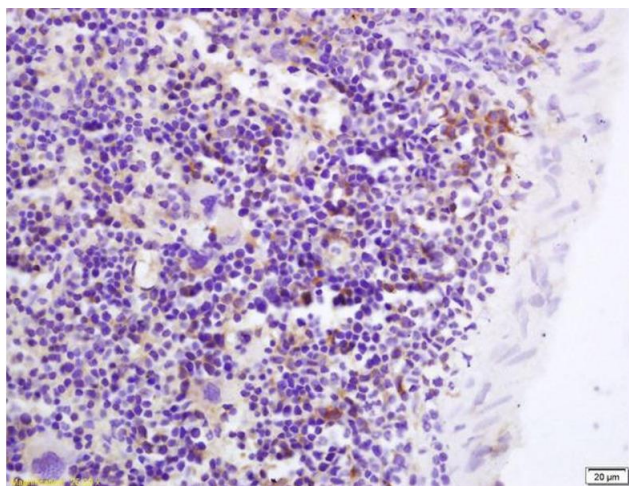
	IF(IHC-F) 1:50-200
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

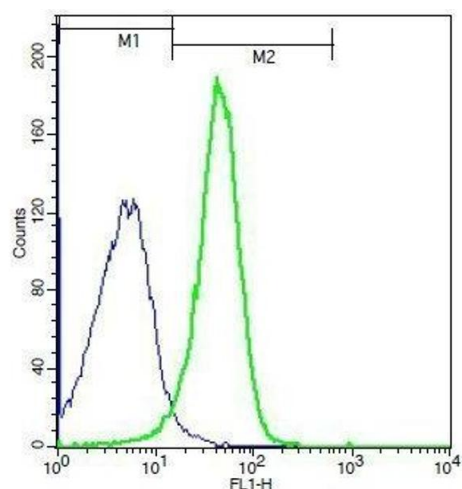
Publications

Product cited in:	Kobayashi, Mikami, Kimura, Kamiyama, Morikawa, Yokoi, Kasuno, Takahashi, Taniguchi, Iwano: "Short-chain fatty acids, GPR41 and GPR43 ligands, inhibit TNF-α-induced MCP-1 expression by modulating p38 and JNK signaling pathways in human renal cortical epithelial cells." in: Biochemical and biophysical research communications , Vol. 486, Issue 2, pp. 499-505, (2017) (PubMed).
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Immunohistochemistry

Image 1. Formalin-fixed and paraffin embedded mouse spleen labeled with Anti-GPR43 Polyclonal Antibody, Unconjugated (ABIN1713521) at 1:200 followed by conjugation to the secondary antibody and DAB staining



Flow Cytometry

Image 2. Mouse splenocytes probed with Rabbit Anti-GPR43 Polyclonal Antibody, Unconjugated .