

ARG66475 anti-FFAR2 / GPR43 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes FFAR2 / GPR43
Tested Reactivity	Hu
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	FFAR2 / GPR43
Species	Human
Immunogen	KLH-conjugated synthetic peptide within the C-terminal region of Human FFAR2 / GPR43.
Conjugation	Un-conjugated
Alternate Names	FFA2R; Free fatty acid receptor 2; G-protein coupled receptor 43; GPR43

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:100 - 1:500
	IHC-P	1:100 - 1:200
	WB	1:500 - 1:1000

Application Note IHC-P: Antigen Retrieval: Heat mediation was performed in Sodium citrate buffer (pH 6.0).
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Observed Size ~ 42 kDa

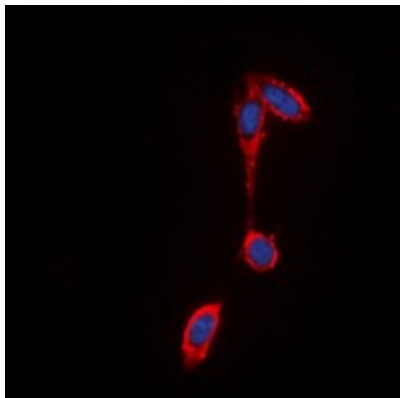
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	0.42% Potassium phosphate (pH 7.3), 0.87% NaCl, 0.01% Sodium azide and 30% Glycerol.
Preservative	0.01% Sodium azide
Stabilizer	30% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

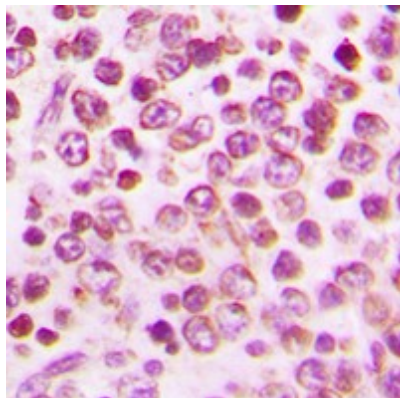
Gene Symbol	FFAR2
Gene Full Name	free fatty acid receptor 2
Background	This gene encodes a member of the GP40 family of G protein-coupled receptors that are clustered together on chromosome 19. The encoded protein is a receptor for short chain free fatty acids and may be involved in the inflammatory response and in regulating lipid plasma levels. [provided by RefSeq, Apr 2009]
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. 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. Among SCFAs, the fatty acids containing less than 6 carbons, the most potent activators are probably acetate, propionate and butyrate. Exhibits a SCFA-independent constitutive G protein-coupled receptor activity. [UniProt]
Calculated Mw	37 kDa
Cellular Localization	Cell membrane; Multi-pass membrane protein. [UniProt]

Images



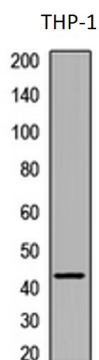
ARG66475 anti-FFAR2 / GPR43 antibody ICC/IF image

Immunofluorescence: Formalin-fixed THP-1 cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at RT. Cells were stained with ARG66475 anti-FFAR2 / GPR43 antibody (red) in 3% BSA-PBS and incubated overnight at 4°C in a humidified chamber. DAPI (blue) for nuclear staining.



ARG66475 anti-FFAR2 / GPR43 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human tonsil. Antigen Retrieval: Heat mediation was performed in Sodium citrate buffer (pH 6.0). The section was then stained with ARG66475 anti-FFAR2 / GPR43 antibody at RT and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



ARG66475 anti-FFAR2 / GPR43 antibody WB image

Western blot: THP-1 whole cell lysate stained with ARG66475 anti-FFAR2 / GPR43 antibody.