

FFAR2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP18578b**Specification**

FFAR2 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [O15552](#)**FFAR2 Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 2867**Other Names**

Free fatty acid receptor 2, G-protein coupled receptor 43, FFAR2, FFA2, GPCR43, GPR43

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

FFAR2 Antibody (C-term) Blocking Peptide - Protein Information**Name** FFAR2**Synonyms** FFA2, GPCR43, GPR43**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).

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

Expressed at relatively high levels in peripheral blood leukocytes and, to lesser extent, in spleen

FFAR2 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

FFAR2 Antibody (C-term) Blocking Peptide - Images**FFAR2 Antibody (C-term) Blocking Peptide - Background**

This gene encodes a member of the GP40 family of Gprotein-coupled receptors that are clustered together on chromosome19. The encoded protein is a receptor for short chain free fattyacids and may be involved in the inflammatory response and inregulating lipid plasma levels.

FFAR2 Antibody (C-term) Blocking Peptide - References

Swaminath, G., et al. FEBS Lett. 584(19):4208-4214(2010)Hatanaka, H., et al. Cancer Sci. 101(1):54-59(2010)Stoddart, L.A., et al. Pharmacol. Rev. 60(4):405-417(2008)Swaminath, G. Arch. Pharm. (Weinheim) 341(12):753-761(2008)Hirasawa, A., et al. Biol. Pharm. Bull. 31(10):1847-1851(2008)