

**FFAR2 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP18578b**

**Specification**

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**FFAR2 Antibody (C-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O15552</a>
Other Accession	<a href="#">NP_005297.1</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	37144
Antigen Region	286-315

**FFAR2 Antibody (C-term) - Additional Information**

**Gene ID** 2867

**Other Names**

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

**Target/Specificity**

This FFAR2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 286-315 amino acids from the C-terminal region of human FFAR2.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

FFAR2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**FFAR2 Antibody (C-term) - 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

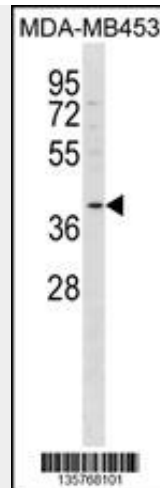
#### **FFAR2 Antibody (C-term) - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **FFAR2 Antibody (C-term) - Images**





FFAR2 Antibody (C-term) (Cat. #AP18578b) western blot analysis in MDA-MB453 cell line lysates (35ug/lane). This demonstrates the FFAR2 antibody detected the FFAR2 protein (arrow).

#### **FFAR2 Antibody (C-term) - 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.

#### **FFAR2 Antibody (C-term) - 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)