10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

FFAR1 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI16189

Product Information

Application	WB
Primary Accession	O14842
Other Accession	NM_005303, NP_005294
Reactivity	Human, Mouse, Rat, Pig, Dog, Bovine
Predicted	Human, Mouse, Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31457

Additional Information

Gene ID	2864
Alias Symbol	FFA1R, GPCR40, GPR40
Other Names	Free fatty acid receptor 1, G-protein coupled receptor 40, FFAR1, GPR40
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-FFAR1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	FFAR1 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FFAR1
Synonyms	GPR40
Function	G protein-coupled receptor for medium and long chain saturated and unsaturated fatty acids that plays an important role in glucose homeostasis. Fatty acid binding increases glucose-stimulated insulin secretion, and may also enhance the secretion of glucagon-like peptide 1 (GLP-1). May also play a role in bone homeostasis; receptor signaling activates pathways that inhibit osteoclast differentiation (By similarity). Ligand binding leads to a conformation change that triggers signaling via G proteins that activate phospholipase C, leading to an increase of the intracellular calcium concentration. Seems to act through a G(q) and G(i)-mediated pathway.

	Mediates the anti-inflammatory effects of omega-3 polyunsaturated fatty acids (PUFAs) via inhibition of NLRP3 inflammasome activation.
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Detected in brain and pancreas. Detected in pancreatic beta cells.

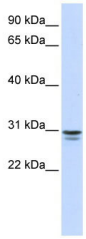
Background

G-protein coupled receptor for medium and long chain saturated and unsaturated fatty acids that plays an important role in glucose homeostasis. Fatty acid binding increases glucose- stimulated insulin secretion, and may also enhance the secretion of glucagon-like peptide 1 (GLP-1). May also play a role in bone homeostasis; receptor signaling activates pathways that inhibit osteoclast differentiation (By similarity). Ligand binding leads to a conformation change that triggers signaling via G-proteins that activate phospholipase C, leading to an increase of the intracellular calcium concentration. Seems to act through a G(q) and G(i)-mediated pathway.

References

Sawzdargo M.,et al.Biochem. Biophys. Res. Commun. 239:543-547(1997).
Briscoe C.P.,et al.J. Biol. Chem. 278:11303-11311(2003).
Tomita T.,et al.Biochem. Biophys. Res. Commun. 338:1788-1790(2005).
Sum C.S.,et al.J. Biol. Chem. 282:29248-29255(2007).
Sum C.S.,et al.J. Biol. Chem. 284:3529-3536(2009).

Images



WB Suggested Anti-FFAR1 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:12500
Positive Control: Human Liver

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.