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

GPR40 Polyclonal Antibody

Catalog # AP70202

Product Information

Application	WB, IF
Primary Accession	O14842
Reactivity	Human, Monkey
Host	Rabbit
Clonality	Polyclonal
Calculated MW	31457

Additional Information

Gene ID	2864
Other Names	FFAR1; GPR40; Free fatty acid receptor 1; G-protein coupled receptor 40
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications. IF~~1:50~200
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20℃

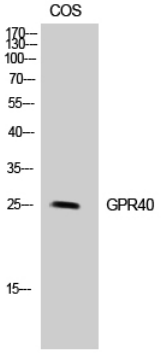
Protein Information

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.

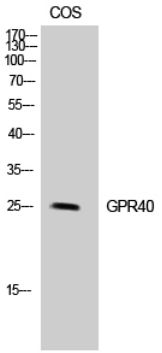
Background

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.

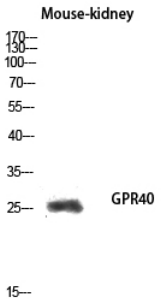
Images



Western Blot analysis of COS7 cells using GPR40 Polyclonal Antibody diluted at 1：500



Western Blot analysis of COS-7 cells using GPR40 Polyclonal Antibody diluted at 1：500



Western blot analysis of Mouse-kidney lysis using GPR40 antibody. Antibody was diluted at 1:500