

Product datasheet for **AP01314PU-N**

GPR40 (FFAR1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF, WB
Recommended Dilution:	ELISA: 1/20000-1/40000 (peptide ELISA only) Western Blot: 1/500-1/1000. Immunofluorescence: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 201-250 of Human GPR40.
Specificity:	This antibody detects endogenous levels of GPR40 protein. (region surrounding Trp224)
Formulation:	PBS, pH~7.2 State: Aff - Purified State: Liquid purified Ig fraction (> 95% by SDS-PAGE) Preservative: 0.05% Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 26 kDa
Gene Name:	free fatty acid receptor 1
Database Link:	<u>Entrez Gene 233081 Mouse</u> <u>Entrez Gene 266607 Rat</u> <u>Entrez Gene 2864 Human</u> <u>O14842</u>



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Background:

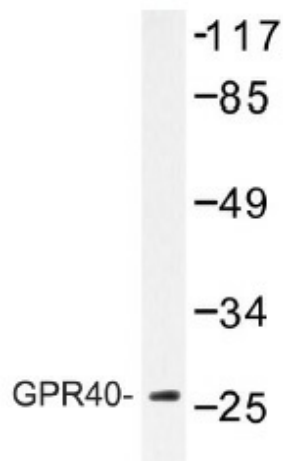
G protein coupled receptors provide attractive targets for drug therapy due to the sheer size and diversity of ligands within this receptor family. G protein-coupled receptor 40 (GPR40) functions as a cell-surface receptor for long-chain free fatty acids (FFAs). FFAs provide an important energy source, but also function as signaling molecules in various pathways, notably the process of insulin secretion. In pancreatic tissue, the interaction of long-chain FFAs with GPR40 amplifies glucose-stimulated insulin secretion from beta cells, suggesting a possible role for GPR40 in the treatment of diabetes associated with insulin-deficiency. Specifically, the Arg211His polymorphism in the GPR40 gene may contribute to the variation of insulin secretory capacity in Japanese men. Also, GPR40 may be involved in the control of breast cancer cell growth by fatty acids and, therefore, provide a link between fat and cancer.

Synonyms:

Free fatty acid receptor 1, G-protein coupled receptor 40

Protein Families:

Druggable Genome, GPCR, Transmembrane

Product images:

Western blot analysis of GPR40 Antibody Cat.-No. AP01314PU-N) in extracts from COS-7 cells treated with forskolin 40nM 30'.