

Anti-GPR48 Antibody

Catalog # AP53994

Product Information

Application	WB, IF/IC
Primary Accession	Q9BXB1
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	104475

Additional Information

Gene ID	55366
Other Names	GPR48; Leucine-rich repeat-containing G-protein coupled receptor 4; G-protein coupled receptor 48
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human GPR48. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	LGR4
Synonyms	GPR48
Function	Receptor for R-spondins that potentiates the canonical Wnt signaling pathway and is involved in the formation of various organs. Upon binding to R-spondins (RSPO1, RSPO2, RSPO3 or RSPO4), associates with phosphorylated LRP6 and frizzled receptors that are activated by extracellular Wnt receptors, triggering the canonical Wnt signaling pathway to increase expression of target genes. In contrast to classical G protein-coupled receptors, does not activate heterotrimeric G proteins to transduce the signal. Its function as activator of the Wnt signaling pathway is required for the development of various organs, including liver, kidney, intestine, bone, reproductive tract and eye. May also act as a receptor for norrin (NDP), such results however require additional confirmation in vivo. Required during spermatogenesis to activate the Wnt signaling pathway in peritubular myoid cells. Required for the maintenance of intestinal stem cells and Paneth cell differentiation in

postnatal intestinal crypts. Acts as a regulator of bone formation and remodeling. Involved in kidney development; required for maintaining the ureteric bud in an undifferentiated state. Involved in the development of the anterior segment of the eye. Required during erythropoiesis. Also acts as a negative regulator of innate immunity by inhibiting TLR2/TLR4 associated pattern-recognition and pro-inflammatory cytokine production. Plays an important role in regulating the circadian rhythms of plasma lipids, partially through regulating the rhythmic expression of MTTP (By similarity). Required for proper development of GnRH neurons (gonadotropin-releasing hormone expressing neurons) that control the release of reproductive hormones from the pituitary gland (By similarity).

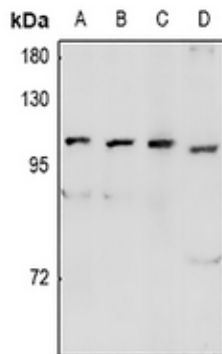
Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

Expressed in multiple steroidogenic tissues: placenta, ovary, testis and adrenal. Expressed also in spinal cord, thyroid, stomach, trachea, heart, pancreas, kidney, prostate and spleen

Images



Western blot analysis of GPR48 expression in HEK293T (A), PC3 (B), SP20 (C), PC12 (D) whole cell lysates. (Predicted band size: 104 kD; Observed band size: 104 kD)



Immunofluorescent analysis of GPR48 staining in LOVO cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with Alexa Fluor 647-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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