

GPR49 Rabbit pAb
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Catalog # AP94473**Specification****GPR49 Rabbit pAb - Product Information**

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q9Z1P4
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse GPR49
Epitope Specificity	810-907/907
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Multi-pass membrane protein.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family. Contains 16 LRR (leucine-rich) repeats. Contains 1 LRRNT domain.
SUBUNIT	Identified in a complex composed of RNF43, LGR5 and RSP01.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

The protein encoded by this gene is a leucine-rich repeat-containing receptor (LGR) and member of the G protein-coupled, 7-transmembrane receptor (GPCR) superfamily. The encoded protein is a receptor for R-spondins and is involved in the canonical Wnt signaling pathway. This protein plays a role in the formation and maintenance of adult intestinal stem cells during postembryonic development. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2015]

GPR49 Rabbit pAb - Additional Information**Gene ID** 14160**Other Names**

Leucine-rich repeat-containing G-protein coupled receptor 5, G-protein coupled receptor 49, Orphan G-protein coupled receptor FEX, Lgr5, Fex {ECO:0000303|PubMed:9920770}, Gpr49

Target/Specificity

Expressed in skeletal muscle, placenta, spinal cord, and various region of brain. Expressed at the base of crypts in colonic and small mucosa stem cells. In premalignant cancer expression is not restricted to the crypt base. Overexpressed in cancers of the ovary, colon and liver.

Dilution

WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>E~~N/A

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glycerol

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

GPR49 Rabbit pAb - Protein Information

Name Lgr5

Synonyms Fex {ECO:0000303|PubMed:9920770}, Gpr49

Function

Receptor for R-spondins that potentiates the canonical Wnt signaling pathway and acts as a stem cell marker of the intestinal epithelium and the hair follicle. 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. Involved in the development and/or maintenance of the adult intestinal stem cells during postembryonic development.

Cellular Location

Cell membrane; Multi-pass membrane protein. Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein. Note= Rapidly and constitutively internalized to the trans-Golgi network at steady state.

Tissue Location

Expressed in the intestinal epithelium (at protein level) (PubMed:22510880). Expressed in the gonads, the adrenal gland, and in the brain. In the central nervous system expression is restricted to the olfactory bulb. In the adrenal gland detected only in the neural-crest derived chromaffin cells of the medulla, but not in the cells of the adrenal cortex. In the gonads, the expression is high in Graafian follicle, but absent from primary and secondary follicles. In the intestine, exclusively expressed in cycling crypt base columnar cells. Expressed in the lower bulge and secondary germ area of telogen hair follicles and in the lower outer root sheath of anagen hair follicle.

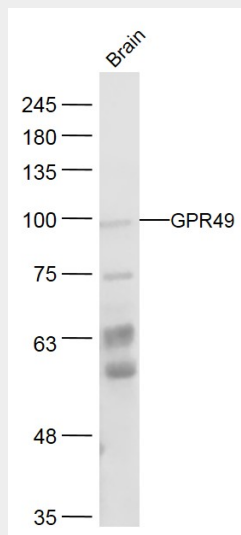
GPR49 Rabbit pAb - Protocols

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

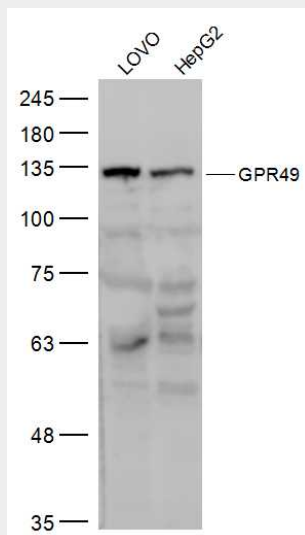
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

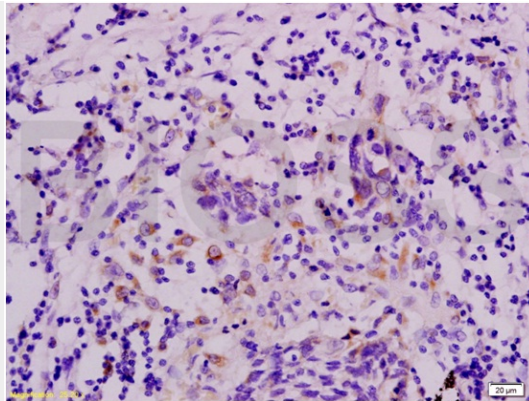
GPR49 Rabbit pAb - Images



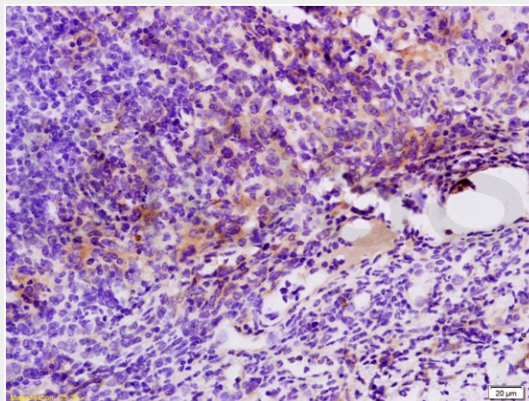
Sample: Brain (Mouse) Lysate at 40 ug Primary: Anti-GPR49 (AP94473) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 98 kD
Observed band size: 98 kD



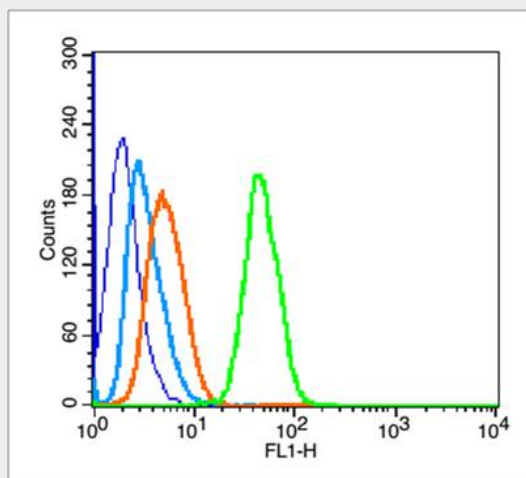
Sample: LOVO(Human) Cell Lysate at 30 ug HepG2(Human) Cell Lysate at 30 ug Primary:
Anti-GPR49 (AP94473) at 1/500 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000
dilution Predicted band size: 98 kD Observed band size: 125 kD



Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-GPR49/LGR5 Polyclonal Antibody, Unconjugated(AP94473) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

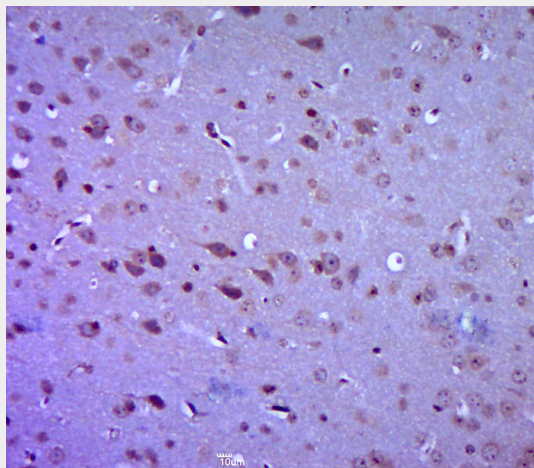


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Blank control (blue line):Hela(blue). Primary Antibody (green line): Rabbit Anti-GPR49 antibody(AP94473), Dilution: 3 μg /10⁶ cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC Dilution: 1 μg /test. Protocol The

cells were fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.



Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GPR49) Polyclonal Antibody, Unconjugated (AP94473) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

GPR49 Rabbit pAb - Background

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