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LGR5 antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP22389a

Product Information

Application	WB, IHC, IHC-P, E
Primary Accession	O75473
Reactivity	Human, Hamster, Rat, Mouse
Predicted	Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	R00662
Calculated MW	99998

Additional Information

Gene ID	8549
Other Names	Leucine-rich repeat-containing G-protein coupled receptor 5, G-protein coupled receptor 49, G-protein coupled receptor 67, G-protein coupled receptor HG38, LGR5, GPR49, GPR67
Target/Specificity	This antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between amino acids from human.
Dilution	WB~~1:1000 IHC~~1:500-1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	LGR5 antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LGR5
Synonyms	GPR49, GPR67
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. Internalization to the trans-Golgi network may be the result of phosphorylation at Ser-861 and Ser-864; however, the phosphorylation event has not been proven (PubMed:23439653)
Tissue Location	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 cript base. Overexpressed in cancers of the ovary, colon and liver.

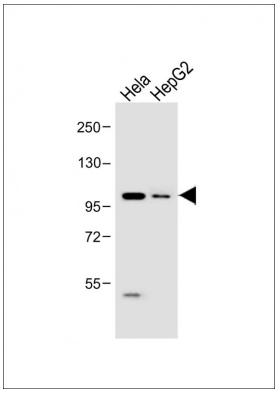
Background

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.

References

McDonald T.,et al.Biochem. Biophys. Res. Commun. 247:266-270(1998).
Hsu S.Y.,et al.Mol. Endocrinol. 12:1830-1845(1998).
Rot S.,et al.Submitted (APR-2010) to the EMBL/GenBank/DDBJ databases.
Scherer S.E.,et al.Nature 440:346-351(2006).
Yamamoto Y.,et al.Hepatology 37:528-533(2003).

Images



All lanes : Anti-LGR5 antibody (N-term) at 1:1000 dilution Lane 1: Hela whole cell lysate Lane 2: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Observed band size : 100 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Citations

- Establishment of Intestinal Organoid from and the Susceptibility to Bat-Associated Viruses, SARS-CoV-2 and Pteropine Orthoreovirus
- Vitamin D suppresses intestinal epithelial stemness via ER stress induction in intestinal organoids