10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

GPR49 / LGR5 Antibody (Cytoplasmic Domain)

Rabbit Polyclonal Antibody
Catalog # ALS10310

Specification

GPR49 / LGR5 Antibody (Cytoplasmic Domain) - Product Information

Application	**IHC**
Primary Accession	O75473
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**100kDa KDa**

GPR49 / LGR5 Antibody (Cytoplasmic Domain) - 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
Human GPR49 / LGR5. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

Precautions
GPR49 / LGR5 Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

GPR49 / LGR5 Antibody (Cytoplasmic Domain) - 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.

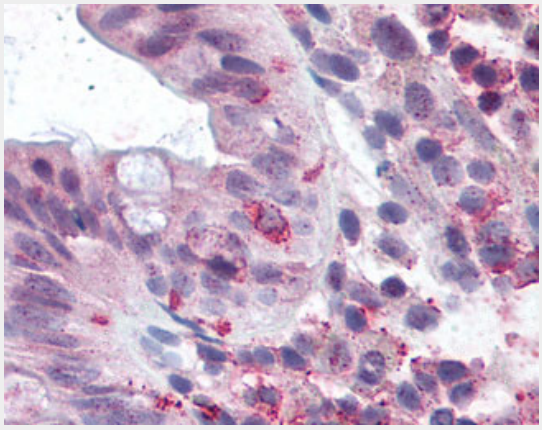
Volume
50 µl

GPR49 / LGR5 Antibody (Cytoplasmic Domain) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GPR49 / LGR5 Antibody (Cytoplasmic Domain) - Images



Human Colon: Formalin-Fixed Paraffin-Embedded (FFPE)

GPR49 / LGR5 Antibody (Cytoplasmic Domain) - 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.

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GPR49 / LGR5 Antibody (Cytoplasmic Domain) - References

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Hsu S.Y.,et al.Mol. Endocrinol. 12:1830-1845(1998).
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Scherer S.E.,et al.Nature 440:346-351(2006).
Yamamoto Y.,et al.Hepatology 37:528-533(2003).