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LGR5 (GPR49) Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP2745b

Specification

LGR5 (GPR49) Antibody (C-term) Blocking peptide - Product Information

Primary Accession O75473

LGR5 (GPR49) Antibody (C-term) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP2745b was selected from the C-term region of human LGR5/GPR49. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

LGR5 (GPR49) Antibody (C-term) Blocking peptide - 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.

LGR5 (GPR49) Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

LGR5 (GPR49) Antibody (C-term) Blocking peptide - Images

LGR5 (GPR49) Antibody (C-term) Blocking peptide - Background

LGR5/GPR49 is an orphan receptor. It may be an important receptor for signals controlling growth and differentiation of specific embryonic tissues.

LGR5 (GPR49) Antibody (C-term) Blocking peptide - References

Barker,N., Nature 449 (7165), 1003-1007 (2007)McClanahan,T., Cancer Biol. Ther. 5 (4), 419-426 (2006)Yamamoto,Y., Hepatology 37 (3), 528-533 (2003)Hsu,S.Y., Mol. Endocrinol. 14 (8), 1257-1271 (2000)