

**LGR5 (GPR49) Antibody (loop1) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP2745c****Specification**

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**LGR5 (GPR49) Antibody (loop1) Blocking peptide - Product Information**Primary Accession [O75473](#)**LGR5 (GPR49) Antibody (loop1) 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 [AP2745c](/product/products/AP2745c) was selected from the loop1 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 (loop1) 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 crypt base. Overexpressed in cancers of the ovary, colon and liver.

**LGR5 (GPR49) Antibody (loop1) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

**LGR5 (GPR49) Antibody (loop1) Blocking peptide - Images****LGR5 (GPR49) Antibody (loop1) 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 (loop1) 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)