



# Recombinant Human Leucine-rich repeat-containing G-protein coupled receptor 5 (LGR5), partial

<b>Product Code</b>	CSB-EP012906HU
<b>Relevance</b>	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.
<b>Abbreviation</b>	Recombinant Human LGR5 protein, partial
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	O75473
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 90% as determined by SDS-PAGE.
<b>Sequence</b>	GSSPRSGVLLRGCPHCHCEPDGRMLLRVDCSDLGLSELPSNLSVFTSYLDL SMNNISQLLPNPLPSLRFLEELRLAGNALTYIPKGAFTGLYSLKVLMLQNNQLR HVPTEALQNLRSLSRLDANHISYVPPSCFSGLHSLRHLWLDDNALTEIPVQA FRSLSALQAMTLALNKHIPDYAFGNLSSLVVLHLHNNRIHSLGKKCFDGLHSL ETLDLNNNLDEFPTAIRTLNLKELGFHSNNIRSIPEKAFVGNPSLITIHFYDNPI QFVGRSAFQHLPELRTLTLNGASQITEFPDLTGANLESLTLTGAQISSLPQTV CNQLPNLQVLDLSYNLLEDLPSFSVCQKLQKIDLRHNEIYEIKVDTFQQLLSLRS LNLAWNKIAIHPNAFSTLPSLIKLDLSSNLLSFPITGLHGLTHLKLGTGNHALQSL ISSENFPELKVIEMPYAYQCCAFGVCENAYKISNQWNKGDNSSMDDLHKKDA GMFQAQDERDLEDFLDFFEDLKALHSVQCSPSPGPFKPCEHLLDGWLIR
<b>Research Area</b>	others
<b>Source</b>	E.coli
<b>Target Names</b>	LGR5
<b>Protein Names</b>	G-protein coupled receptor 49 G-protein coupled receptor 67 G-protein coupled receptor HG38
<b>Expression Region</b>	22-561aa



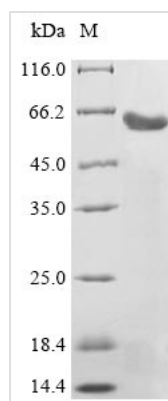
**Notes** Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

**Tag Info** N-terminal 10xHis-tagged and C-terminal myc-tagged

**Mol. Weight** 65.4kDa

**Protein Length** Extracellular Domain

#### Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

#### Description

The synthesis of the recombinant plasmid containing the gene encoding the Human LGR5 protein (22-561aa) is the first step to produce the recombinant Human LGR5 protein. After that, the recombinant plasmid is transformed into e.coli cells. e.coli cells capable of enduring a specific antibiotic are selected, demonstrating successful uptake of the recombinant plasmid. The e.coli cells containing the recombinant plasmid are cultured under conditions that encourage the expression of the gene of interest. A N-terminal 10xHis tag and C-terminal myc tag is linked to the protein. Following expression, affinity purification is employed to isolate and purify the recombinant Human LGR5 protein from the cell lysate. Denaturing SDS-PAGE is applied to resolve the resulting recombinant Human LGR5 protein, indicating a purity level exceeding 90%.

#### Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

#### Shelf Life

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