

**GPR48 / LGR4 Antibody (Cytoplasmic Domain)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS10424****Specification**

---

**GPR48 / LGR4 Antibody (Cytoplasmic Domain) - Product Information**

Application	IHC-P
Primary Accession	<a href="#">Q9BXB1</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	104kDa KDa
Dilution	IHC-P~~N/A

**GPR48 / LGR4 Antibody (Cytoplasmic Domain) - Additional Information****Gene ID** 55366**Other Names**

Leucine-rich repeat-containing G-protein coupled receptor 4, G-protein coupled receptor 48, LGR4, GPR48

**Target/Specificity**

Human LGR4. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

**Reconstitution & Storage**

Long term: -70°C; Short term: +4°C

**Precautions**

GPR48 / LGR4 Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

**GPR48 / LGR4 Antibody (Cytoplasmic Domain) - Protein Information****Name** LGR4**Synonyms** GPR48**Function**

Receptor for R-spondins that potentiates the canonical Wnt signaling pathway and is involved in the formation of various organs. 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. Its function as activator of the Wnt signaling pathway is required for the development of various organs, including liver, kidney, intestine, bone, reproductive tract and eye. May also act as a receptor for norrin (NDP), such results however require additional confirmation in

vivo. Required during spermatogenesis to activate the Wnt signaling pathway in peritubular myoid cells. Required for the maintenance of intestinal stem cells and Paneth cell differentiation in postnatal intestinal crypts. Acts as a regulator of bone formation and remodeling. Involved in kidney development; required for maintaining the ureteric bud in an undifferentiated state. Involved in the development of the anterior segment of the eye. Required during erythropoiesis. Also acts as a negative regulator of innate immunity by inhibiting TLR2/TLR4 associated pattern-recognition and pro-inflammatory cytokine production. Plays an important role in regulating the circadian rhythms of plasma lipids, partially through regulating the rhythmic expression of MTTP (By similarity). Required for proper development of GnRH neurons (gonadotropin-releasing hormone expressing neurons) that control the release of reproductive hormones from the pituitary gland (By similarity).

**Cellular Location**

Cell membrane; Multi-pass membrane protein

**Tissue Location**

Expressed in multiple steroidogenic tissues: placenta, ovary, testis and adrenal. Expressed also in spinal cord, thyroid, stomach, trachea, heart, pancreas, kidney, prostate and spleen

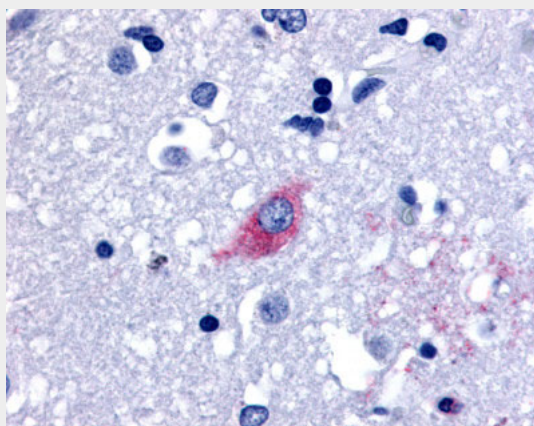
**Volume**

50  $\mu$ l

**GPR48 / LGR4 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 Cytometry](#)
- [Cell Culture](#)

**GPR48 / LGR4 Antibody (Cytoplasmic Domain) - Images**

Anti-LGR4 antibody ALS10424 IHC of human brain, neurons and glia.

**GPR48 / LGR4 Antibody (Cytoplasmic Domain) - Background**

Receptor for R-spondins that potentiates the canonical Wnt signaling pathway and is involved in the formation of various organs. 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. Its function as activator of the Wnt signaling pathway is required for the development of various organs, including liver, kidney, intestine, bone, reproductive tract and eye. May also act as a receptor for norrin (NDP), such results however require additional confirmation in vivo. Required during spermatogenesis to activate the Wnt signaling pathway in peritubular myoid cells. Required for the maintenance of intestinal stem cells and Paneth cell differentiation in postnatal intestinal crypts. Acts as a regulator of bone formation and remodeling. Involved in kidney development; required for maintaining the ureteric bud in an undifferentiated state. Involved in the development of the anterior segment of the eye. Required during erythropoiesis. Also acts as a negative regulator of innate immunity by inhibiting TLR2/TLR4 associated pattern-recognition and proinflammatory cytokine production. Plays an important role in regulating the circadian rhythms of plasma lipids, partially through regulating the rhythmic expression of MTTP (By similarity).

#### **GPR48 / LGR4 Antibody (Cytoplasmic Domain) - References**

Loh E.D.,et al.Biochem. Biophys. Res. Commun. 282:757-764(2001).  
Taylor T.D.,et al.Nature 440:497-500(2006).  
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.  
Glinka A.,et al.EMBO Rep. 12:1055-1061(2011).  
de Lau W.,et al.Nature 476:293-297(2011).