

Anti-LGR4 (MOUSE) Monoclonal Antibody - 200-301-B45S

Code: 200-301-B45S

Size: 25 µL

Product Description: Anti-LGR4 (MOUSE) Monoclonal Antibody - 200-301-B45S

Concentration: 1.13 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Mouse
Gene Name	LGR4
Species Reactivity	human, chimpanzee, macaque
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
Storage Condition	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Synonyms	mouse anti-LGR4 antibody, mouse anti-LGR 4 antibody, leucine-rich repeat-containing G protein-coupled receptor 4
Application Note	This monoclonal antibody is suitable for ELISA, immunohistochemistry and western blotting. Expect a band approximately 102 kDa in size corresponding to LGR4 protein by western blotting in the appropriate cell lysate or extract. Specific conditions for reactivity should be optimized by the end user. Use formalin-fixed paraffin-embedded sections for immunohistochemistry. No pre-treatment of sample is required.
Background	LGR4, also known as leucine-rich repeat-containing G protein-coupled receptor 4, is a G protein-coupled receptors (GPCRs). GPCRs are membrane bound proteins that play key roles in a variety of physiologic functions. Members of the leucine-rich GPCR (LGR) family, such as GPR48, have multiple N-terminal leucine-rich repeats (LRRs) and a 7-transmembrane domain. LGR4 is an orphan GPCR reported to be expressed in steroidogenic tissues such as placenta, ovary, testis, adrenal, pancreas, prostate, and thyroid, as well as in spinal cord, stomach, heart, and kidney.
Purity And Specificity	Anti-LGR4 was purified from concentrated tissue culture supernate by Protein A chromatography. This antibody is specific for human LGR4 protein. A BLAST analysis was used to suggest cross-reactivity with LGR4 from chimpanzee, orangutan and macaque based on 100% homology with the immunizing sequence. Cross-reactivity with LGR4 from other sources has not been determined.
Assay Dilutions	User Optimized
ELISA	1:20,000 - 1:100,000
Western Blot	1:500 - 1:3,000
Immunohistochemistry	5 µg/mL
Other Assays	User Optimized
Expiration	Expiration date is three (3) months from date of opening.
Immunogen	This monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to an internal region of human LGR4 protein. The hybridoma was produced by fusing BALB/c mouse splenocytes and mouse myeloma SP2/O cells using conventional technology.

General Reference

Weng,J., Luo,J., Cheng,X., Jin,C., Zhou,X., Qu,J., Tu,L., Ai,D.,Li,D., Wang,J., Martin,J.F., Amendt,B.A. and Liu,M.(2008) Deletion of G protein-coupled receptor 48 leads to ocular anterior segment dysgenesis (ASD) through down-regulation of Pitx2. Proc. Natl. Acad. Sci. U.S.A. 105 (16), 6081-6086.Gao,Y., Kitagawa,K., Hiramatsu,Y., Kikuchi,H., Isoke,T., Shimada,M., Uchida,C., Hattori,T., Oda,T., Nakayama,K., Nakayama,K.I., Tanaka,T., Konno,H. and Kitagawa,M. (2006) Up-regulation of GPR48 induced by down-regulation of p27Kip1 enhances carcinoma cell invasiveness and metastasis. Cancer Res. 66 (24), 11623-11631.Loh,E.D., Broussard,S.R. and Kolakowski,L.F. (2001) Molecular characterization of a novel glycoprotein hormone G-protein-coupled receptor. Biochem. Biophys. Res. Commun. 282 (3), 757-764.Loh,E.D., Broussard,S.R., Liu,Q., Copeland,N.G., Gilbert,D.J., Jenkins,N.A. and Kolakowski,L.F. Jr. (2000) Chromosomal localization of GPR48, a novel glycoprotein hormone receptor like GPCR, in human and mouse with radiation hybrid and interspecific backcross mapping. Cytogenet. Cell Genet. 89 (1-2), 2-5.Hsu,S.Y., Liang,S.G. and Hsueh,A.J. (1998) Characterization of two LGR genes homologous to gonadotropin and thyrotropin receptors with extracellular leucine-rich repeats and a G protein-coupled, seven-transmembrane region. Mol. Endocrinol. 12 (12), 1830-1845.

Related Products

200-301-B45	Anti-LGR4 (MOUSE) Monoclonal Antibody - 200-301-B45
200-301-B46	Anti-LGR4 Monoclonal Antibody (MOUSE) - 200-301-B46
610-4302	Anti-MOUSE IgG (H&L) (RABBIT) Antibody Peroxidase Conjugated - 610-4302
K-500	Antibody and Blocking Solution Starter PackK-500

Related Links

UniProtKB - Q8N537

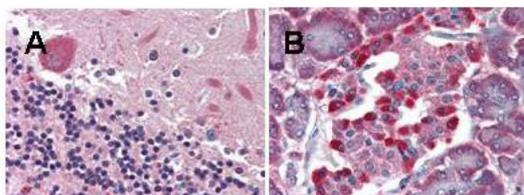
<http://www.uniprot.org/uniprot/Q8N537>

NCBI - 157694513 <http://www.ncbi.nlm.nih.gov/protein/157694513>

GeneID - 55366

Images

- 1 Rockland's anti-LGR4 monoclonal antibody was used diluted to 5 µg/ml to detect LGR4 staining at the membrane of cells in various human tissues. A. Brain cerebellum. B. Pancreas islet. Strongly positive staining is noted in subsets of cells within the islets of Langerhans. Moderately positive staining was observed in Purkinje and Golgi neurons of the cerebellum, adrenal medulla, neuroendocrine cells, hepatocytes, lung macrophages, seminiferous tubules and Leydig cells of the testis. Faintly to moderately positive staining was also observed in cardiac myocytes and renal tubules, granulocytes, and subsets of lymphocytes. Some elastin background staining is noted. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain. Personal communication, Andrew Elston, Lifespan Biosciences, Seattle, WA.



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