Anti-LGR5 Antibody [SU32-04]

ET1608-18

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IP
Molecular Wt:	Predicted band size: 100 kDa
Clone number:	SU32-04

Description: Leucine-rich repeat-containing G-protein coupled receptor 5 (LGR5) also known as G-protein coupled receptor 49 (GPR49) or G-protein coupled receptor 67 (GPR67) is a protein that in humans is encoded by the LGR5 gene. It is a member of GPCR class A receptor proteins. R-spondin proteins are the biological ligands of LGR5. LGR5 is expressed across a diverse range of tissue such as in the muscle, placenta, spinal cord and brain and particularly as a biomarker of adult stem cells in certain tissues. LGR5 is a member of the Wnt signaling pathway. Although its ligand remains elusive, it has been shown that costimulation with R-spondin 1 and Wnt-3a induce increased internalization of LGR5. LGR5 also cointernalizes with LRP6 and FZD5 via a clathrin-dependent pathway to form a ternary complex upon Wnt ligand binding. Moreover, the rapid cointernalization of LRP6 by LGR5 induces faster rates of degradation for the former. LGR5 is crucial during embryogenesis as LGR null studies in mice incurred 100% neonatal mortality accompanied by several craniofacial distortions such as ankyloglossia and gastrointestinal dilation.

Immunogen: Synthetic peptide within Human LGR5 aa 816-865 / 907.

Positive control: Mouse skeletal muscle tissue lysate, rat skeletal muscle tissue lysate, mouse spinal cord tissue lysate, human skeletal muscle tissue lysate, rat kidney tissue lysate, rat spinal cord tissue lysate, SH-SY5Y.

Subcellular location: Cell membrane, Golgi apparatus, Membrane.

Database links: SwissProt: O75473 Human | Q9Z1P4 Mouse
Unigene: 214063 Rat

Recommended Dilutions:

WB	1:5,000
IP	Use at an assay dependent concentration.

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

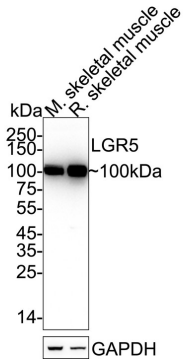

Fig1: Western blot analysis of LGR5 on different lysates with Rabbit anti-LGR5 antibody (ET1608-18) at 1/5,000 dilution.

Lane 1: Mouse skeletal muscle tissue lysate
Lane 2: Rat skeletal muscle tissue lysate

Lysates/proteins at 40 µg/Lane.

Predicted band size: 100 kDa
Observed band size: 100 kDa

Exposure time: 10 seconds; ECL: K1801;
4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1608-18) at 1/5,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

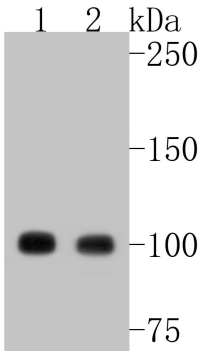

Fig2: Western blot analysis of LGR5 on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET1608-18, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: Mouse spinal cord tissue lysate
Lane 2: Human skeletal muscle tissue lysate

Predicted band size: 100 kDa
Observed band size: 100 kDa

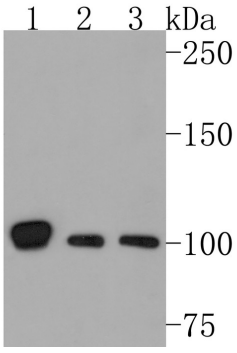

Fig3: Western blot analysis of LGR5 on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET1608-18, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.
Positive control:
Lane 1: Rat skeletal muscle tissue lysate
Lane 2: Rat kidney tissue lysate
Lane 3: Rat spinal cord tissue lysate

Predicted band size: 100 kDa
Observed band size: 100 kDa

Background References

1. Kantara C et al. Methods for detecting circulating cancer stem cells (CCSCs) as a novel approach for diagnosis of colon cancer relapse/metastasis. Lab Invest 95:100-12 (2015).
2. Oshima N et al. Induction of cancer stem cell properties in colon cancer cells by defined factors. PLoS One 9:e101735 (2014).