abcam

ab126747

Anti-GPCR LGR6 antibody [EPR6874]

Anti-GPCR LGR6 antibody [EPR6874] (ab126747) is a rabbit monoclonal antibody detecting GPCR LGR6 in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR6874
Purification technique	Affinity purification Protein A
Concentration	0.156 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse

Dilution info	1/240
Notes	**For unpurified use at 1/50 - 1/250.** Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/240
Notes	**For unpurified use at 1/50 - 1/250.** Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/240
Notes	**For unpurified use at 1/50 - 1/250.** Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	**For unpurified use at 1/100 - 1/500.**

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	**For unpurified use at 1/1000 - 1/10000.**

Species	Rat
Dilution info	1/1000
Notes	**For unpurified use at 1/1000 - 1/10000.**

Species	Human
Dilution info	1/1000
Notes	**For unpurified use at 1/1000 - 1/10000.**

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10 - 1/100
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information LGR6

Function	Receptor for R-spondins that potentiates the canonical Wnt signaling pathway and acts as a marker of multipotent stem cells in the epidermis. 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. May act as a tumor suppressor.

Storage

Shipped at conditions	Conditional Ambient

Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-GPCR LGR6 antibody [EPR6874] (ab126747) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of GPCR LGR6?
Anti-GPCR LGR6 [EPR6874] (ab126747) specifically detects a band for GPCR LGR6 (UniProt: Q9HBX8) at a molecular weight of 104kDa.

Trusted by the scientific community
Anti-GPCR LGR6 [EPR6874] (ab126747) was first used in a scientific publication in 2012 and has been cited over 10 times in peer-reviewed journals.

Other related products
We have a range of other formats of antibody clone [EPR6874] also available for your convenience: ab126747, HRP - ab205760, Carrier free - ab240030, PE - ab314286, Alexa Fluor® 647 - ab315362, Alexa Fluor® 488 - ab318245

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	GPCR LGR6 also known as leucine-rich repeat-containing G protein-coupled receptor 6 is a transmembrane receptor that belongs to the large GPCR family. It has a molecular weight of approximately 98 kDa. LGR6 expresses in various tissues including skin bone and certain regions of the brain. The receptor binds specific ligands which initiates signal transduction pathways that mediate various cellular responses. This function places LGR6 as an important component in multiple physiological processes.
Biological function summary	LGR6 plays an important role in signaling pathways involved in stem cell maintenance and tissue regeneration. It functions together with other proteins as part of a larger receptor complex. In the skin LGR6 marks a population of stem cells involved in hair follicle cycling and epidermal renewal. Its activity influences the cellular communication required for tissue homeostasis and repair. This receptor helps in determining cellular fate and proliferation in various tissues.
Pathways	LGR6 participates in the Wnt signaling pathway which is important for cell differentiation growth and migration. LGR6 interacts with proteins such as R-spondins enhancing Wnt signaling. This connection highlights LGR6's role in modulating pathways essential for embryonic development and tissue patterning. The interaction with Wnt and related proteins positions LGR6 as a modulator of pathways that govern stem cell behavior.
Associated diseases and disorders	Abnormalities in LGR6 function have associations with skin disorders and cancers. Mutations or dysregulation of LGR6 can lead to impaired wound healing and contribute to pathological conditions. In cancer LGR6 has connections with proteins that affect tumor growth and metastasis. Studies suggest involvement of LGR6 in pathways related to squamous cell carcinoma further linking it with proteins involved in cancer progression therefore underlining its potential as a therapeutic target.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

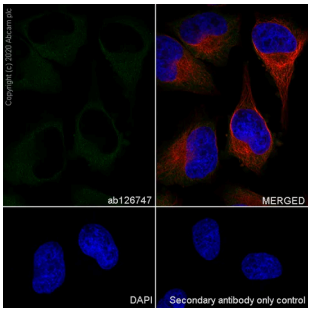
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

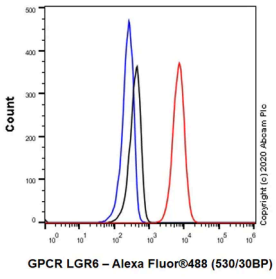
8 product images



Immunocytochemistry/ Immunofluorescence - Anti-GPCR LGR6 antibody [EPR6874] (ab126747)

GPCR LGR6 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-GPCR LGR6 antibody

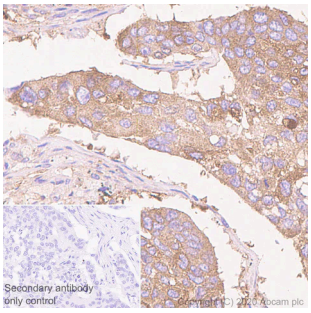
Immunocytochemistry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling GPCR LGR6 with Purified ab126747 at 1:50 dilution (3.0 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488,ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-GPCR LGR6 antibody [EPR6874] (ab126747)

GPCR LGR6 Flow Cytometry (Intracellular) staining using rabbit Anti-GPCR LGR6 antibody

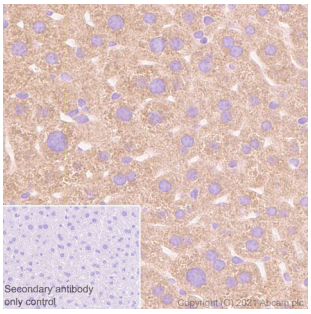
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling GPCR LGR6 with Purified ab126747 at 1/20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488 ,ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR LGR6 antibody [EPR6874] (ab126747)

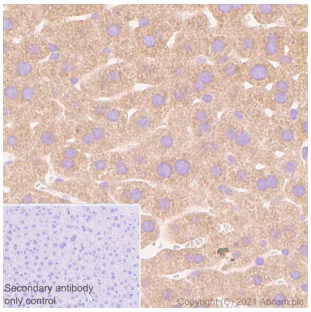
GPCR LGR6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GPCR LGR6 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung cancer tissue sections labeling GPCR LGR6 with purified ab126747 at 1/240 dilution (0.61 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 1 (pH 6.0). The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR LGR6 antibody [EPR6874] (ab126747)

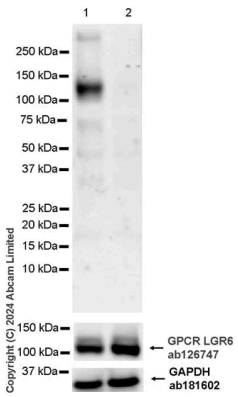
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse liver tissue sections labeling GPCR LGR6 with purified ab126747 at 1/240 dilution (0.61 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 1 (pH 6.0). The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR LGR6 antibody [EPR6874] (ab126747)

GPCR LGR6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GPCR LGR6 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat liver tissue sections labeling GPCR LGR6 with purified ab126747 at 1/240 dilution (0.61 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 1 (pH 6.0). The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-GPCR LGR6 antibody [EPR6874] (ab126747)

GPCR LGR6 Western blot staining using rabbit Anti-GPCR LGR6 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

This antibody is specific to GPCR GPR48/LGR4 and does not cross react with endogenous GPCR LGR6.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 24205130, PMID: 11401528).

Samples are non-boiled as boiling may cause protein aggregation.

In Western blot, Anti-GPCR LGR6 antibody [EPR6874] (ab126747) - Total protein control staining at 1/1000 dilution.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

The high-sensitivity ECL substrate allows for the detection of proteins in the mid-femtogram range.
All lanes:
Western blot - Anti-GPCR GPR48/LGR4 antibody [EPR26351-175] (ab321789) at 1/1000 dilution

Lane 1:
A549 (human lung carcinoma epithelial cell) transfected with scrambled siRNA control whole cell lysate at 40 µg

Lane 2:
A549 transfected with siRNA specifically targeting GPCR GPR48/LGR4 whole cell lysate at 40 µg

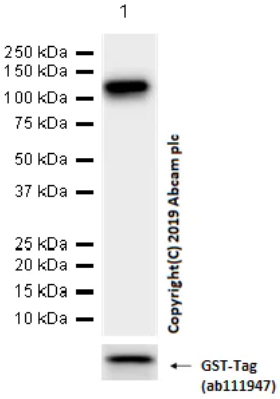
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Developed using the ECL technique.

Observed band size: 110-120 kDa, 36 kDa, 104 kDa

Exposure time: 180s



Western blot - Anti-GPCR LGR6 antibody [EPR6874] (ab126747)

GPCR LGR6 Western blot staining of GST-Tagged Recombinant Human GPCR LGR6 protein using rabbit Anti-GPCR LGR6 antibody

Recombinant Human GPCR LGR6 protein (Cat#: ab153472)
All lanes:
Western blot - Anti-GPCR LGR6 antibody [EPR6874] (ab126747) at 1/1000 dilution

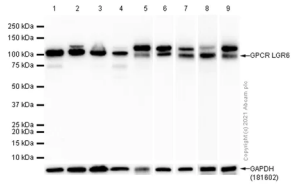
All lanes:
GST-Tagged Recombinant Human GPCR LGR6 protein at 0.015 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 104 kDa

Exposure time: 10s



Western blot - Anti-GPCR LGR6 antibody [EPR6874] (ab126747)

GPCR LGR6 Western blot staining using rabbit Anti-GPCR LGR6 antibody

We are not sure about the extra band.
All lanes:
Western blot - Anti-GPCR LGR6 antibody [EPR6874] (ab126747) at 1/1000 dilution

Lane 1:
HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate at 20 µg

Lane 2:

HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
HUVEC (Human umbilical vein endothelial cell) whole cell lysate at 20 µg

Lane 4:
SK-OV-3 (Human ovarian cancer epithelial cell) whole cell lysate at 20 µg

Lane 5:
Mouse liver lysate at 20 µg

Lane 6:
Rat liver lysate at 20 µg

Lane 7:
Human liver lysate at 20 µg

Lane 8:
Mouse lung lysate at 20 µg

Lane 9:
Rat lung lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 104 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.