abcam

ab240030

# Anti-GPCR LGR6 antibody [EPR6874] - BSA and Azide free

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Carrier free** | Yes |
| **Clone number** | EPR6874 |
| **Purification technique** | Affinity purification Protein A |
| **Concentration** | 0.996 - 1.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder → |

## Reactivity data

## IHC-P

### Tested

| | |
|---|---|
| **Species** | Mouse, Rat, Human |
| **Dilution info** | - |

| | |
|---|---|
| **Notes** | - |

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

### Expected

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

## WB

### Tested

| | |
|---|---|
| **Species** | Mouse, Rat, Human |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | ab199376 - 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** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Storage information** | Do Not Freeze |

## Notes

ab240030 is the carrier-free version of ab126747.

**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.

**Conjugation ready**

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

**Compatibility**
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

## 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.

---

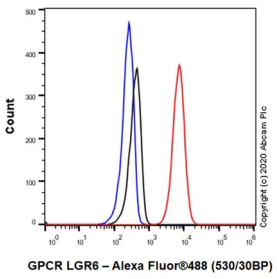
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

---

## 6 product images

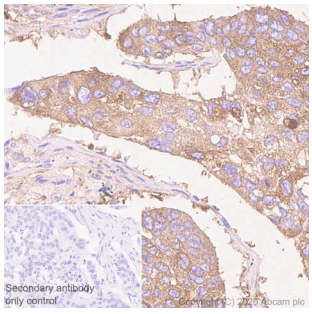



### Flow Cytometry (Intracellular) - Anti-GPCR LGR6 antibody [EPR6874] - BSA and Azide free (ab240030)

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

This data was developed using ab126747, the same antibody clone in a different buffer formulation. 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).

---

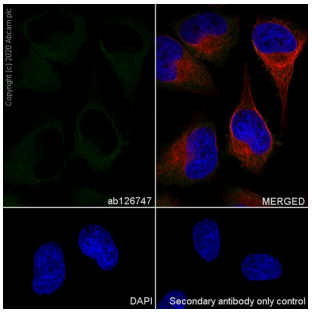



### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR LGR6 antibody [EPR6874] - BSA and Azide free (ab240030)

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

This data was developed using ab126747, the same antibody clone in a different buffer formulation.
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.

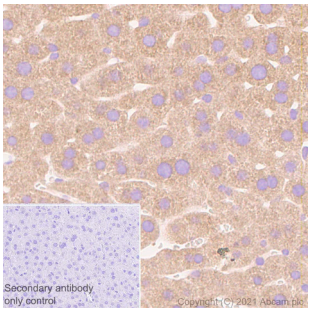
---




## Immunocytochemistry/ Immunofluorescence - Anti-GPCR LGR6 antibody [EPR6874] - BSA and Azide free (ab240030)

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

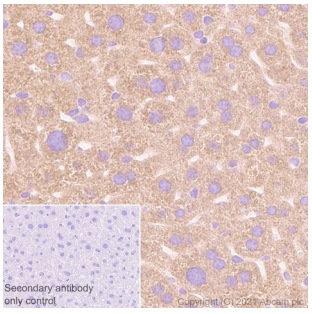
This data was developed using ab126747, the same antibody clone in a different buffer formulation.
Immunocytochemistry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling GPCR LGR6 with Purified ab126747 at 1:50 dilution (3.0 µg/ml). Cells were fixed in 4% Paraformaldehyde and 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.




## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR LGR6 antibody [EPR6874] - BSA and Azide free (ab240030)

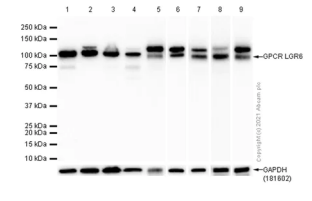
GPCR LGR6 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-GPCR LGR6 antibody

This data was developed using ab126747, the same antibody clone in a different buffer formulation.
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.




## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GPCR LGR6 antibody [EPR6874] - BSA and Azide free (ab240030)

This data was developed using ab126747, the same antibody clone in a different buffer formulation.
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.




## Western blot - Anti-GPCR LGR6 antibody [EPR6874] - BSA and Azide free (ab240030)

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

We are not sure about the extra band.
This data was developed using ab126747, the same antibody clone in a different buffer formulation.

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'.