

**GPR31 Antibody (Extracellular Domain)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS10283****Specification**

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**GPR31 Antibody (Extracellular Domain) - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | IHC-P                  |
| Primary Accession | <a href="#">O00270</a> |
| Reactivity        | Human                  |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |
| Calculated MW     | 35kDa KDa              |
| Dilution          | IHC-P~~N/A             |

**GPR31 Antibody (Extracellular Domain) - Additional Information****Gene ID** 2853**Other Names**

12-(S)-hydroxy-5, 8, 10, 14-eicosatetraenoic acid receptor, 12-(S)-HETE receptor, 12-HETER, G-protein coupled receptor 31, GPR31

**Target/Specificity**

Human GPR31. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

**Reconstitution & Storage**

Long term: -70°C; Short term: +4°C

**Precautions**

GPR31 Antibody (Extracellular Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

**GPR31 Antibody (Extracellular Domain) - Protein Information****Name** GPR31**Function**

High-affinity receptor for 12-(S)-hydroxy-5,8,10,14- eicosatetraenoic acid (12-S-HETE), with much lower affinities for other HETE isomers (PubMed:<a href="http://www.uniprot.org/citations/21712392" target="\_blank">21712392</a>, PubMed:<a href="http://www.uniprot.org/citations/29227475" target="\_blank">29227475</a>). 12-S-HETE is a eicosanoid, a 12-lipoxygenase (ALOX12) metabolite of arachidonic acid, involved in many physiologic and pathologic processes (PubMed:<a href="http://www.uniprot.org/citations/26965684" target="\_blank">26965684</a>, PubMed:<a href="http://www.uniprot.org/citations/28619714" target="\_blank">28619714</a>, PubMed:<a href="http://www.uniprot.org/citations/29227475" target="\_blank">29227475</a>). 12-S-HETE-binding leads to activation of ERK1/2 (MAPK3/MAPK1), MEK, and NF-kappa-B pathways

leading to cell growth (PubMed:<a href="http://www.uniprot.org/citations/21712392" target="\_blank">21712392</a>, PubMed:<a href="http://www.uniprot.org/citations/29227475" target="\_blank">29227475</a>). Plays a crucial role for proliferation, survival and macropinocytosis of KRAS- dependent cancer cells by mediating the translocation of KRAS from the endoplasmic reticulum to the plasma membrane (PM) and its association with the PM (PubMed:<a href="http://www.uniprot.org/citations/28619714" target="\_blank">28619714</a>). Contributes to enhanced immune responses by inducing dendrite protrusion of small intestinal CX3CR1(+) phagocytes for the uptake of luminal antigens (By similarity). Acts also as a key receptor for 12-(S)-HETE-mediated liver ischemia reperfusion injury (PubMed:<a href="http://www.uniprot.org/citations/29227475" target="\_blank">29227475</a>).

#### Cellular Location

Cell membrane; Multi-pass membrane protein

#### Volume

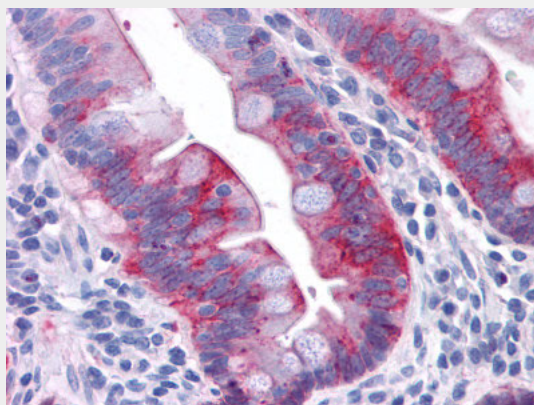
50 µl

### GPR31 Antibody (Extracellular Domain) - Protocols

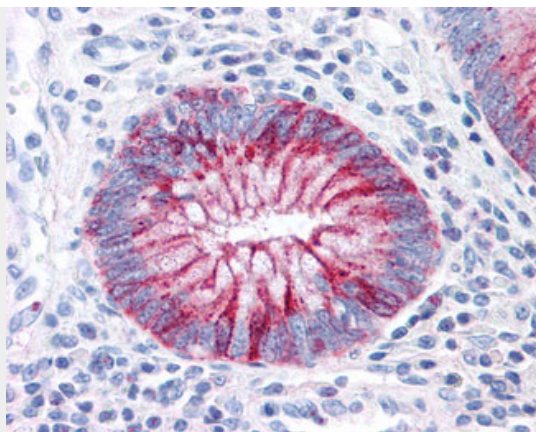
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

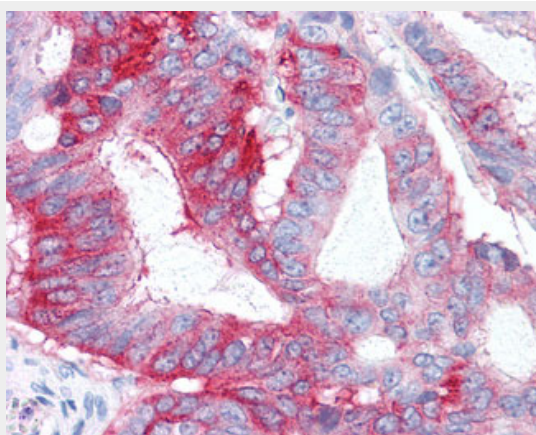
### GPR31 Antibody (Extracellular Domain) - Images



Anti-GPR31 antibody ALS10283 IHC of human small intestine, epithelium.



Anti-GPR31 antibody IHC of human Colon, Carcinoma.



Anti-GPR31 antibody IHC of human Colon, Carcinoma.

### **GPR31 Antibody (Extracellular Domain) - Background**

High-affinity receptor for 12-(S)-hydroxy-5,8,10,14- eicosatetraenoic acid (12-S-HETE). 12-(S)-HETE is an arachidonic acid metabolite secreted by platelets and tumor cells, and known to induce endothelial cells retraction allowing invasive cell access to the subendothelial matrix, which is a critical step for extravasation or metastasis. Ligand-binding lead to activation of ERK1/2 (MAPK3/MAPK1), MEK, and NF-kappa-B.

### **GPR31 Antibody (Extracellular Domain) - References**

Zingoni A.,et al.Genomics 42:519-523(1997).  
Kaighin V.A.,et al.Submitted (DEC-2007) to the EMBL/GenBank/DDBJ databases.  
Mungall A.J.,et al.Nature 425:805-811(2003).  
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.  
Guo Y.,et al.J. Biol. Chem. 286:33832-33840(2011).