Datasheet for ABIN7581890

anti-GPR31 antibody (Extracellular)

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Overview

Quantity:	50 µL
Target:	GPR31
Binding Specificity:	AA 153-169, Extracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GPR31 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (Cultured Cells) (IF (cc)), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal antibody to GPR31 (extracellular)
Immunogen:	CRTTQNSTE(S)PSFYPTG, corresponding to amino acid residues 153 - 169 of mouse GPR31
Sequence:	CRTTQNSTE(S)PSFYPTG
Isotype:	IgG
Specificity:	Extracellular, 2nd loop.
Predicted Reactivity:	Mouse - 16 out of 17 amino acid identical Rat - 14 out of 17 amino acid identical It won't recognize human GPR31
Characteristics:	Anti-GPR31 (extracellular) Antibody (ABIN7581890) is a highly specific antibody directed against an extracellular epitope of the mouse protein. The antibody can be used in western blot,

Product Details

	immunohistochemistry and flow cytometry applications. It has been designed to recognize GPR31 from mouse and rat samples. The antibody will not recognize human GPR31.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	GPR31
Alternative Name:	GPR31 (GPR31 Products)
Background:	G Protein-Coupled Receptor 31, 12-(S)-HETE Acid Receptor, 12-HETER, GPR31/12-HETER,GPR31, also known as 12-HETER or HETER1, is a member of the G protein-coupled receptor (GPCR) superfamily.GPR31 was found to be a high affinity receptor for 12-(S)-hydroxy-5,8,10,14-eicosatetraenoic acid (12-HETE), a metabolite of arachidonic acid produced by the action of the enzyme 12-lipoxygenase (12-LOX), even though GPR31 is still formally considered as a Class A orphan GPCR receptor.1-2Interestingly, 12-HETE is also a ligand for other GPCRs like Thromboxane A2 receptor or ion channels like TRPV1, although at lower affinities.2GPR31 is expressed in various tissues, including the gastrointestinal tract, liver, brain and several types of immune cells.The involvement of GPR31 in various aspects of the inflammatory process have been intensely studied. GPR31plays a key role in hepatic ischemia-reperfusion injury. It is responsible for mediating the inflammatory response triggered by the accumulation of 12-HETE, produced by the enzyme ALOX12.3In addition, it was shown that GPR31 to plays a crucial role in the immune response by regulating the activity of intestinal CX3CR1+ cells. GPR31 activation promotes dendritic cell protrusions of intestinal CX3CR1+ cells, a mechanism is essential for maintaining intestinal homeostasis and could be pivotal in inflammatory conditions where the immune system's interaction with gut microbiota is disrupted.4, 6GPR31 has been implicated in cancer biology. Its activation can promote the migration and invasion of cancer cells, contributing to metastasis. Overexpression of GPR31 has been observed in certain types of cancer including pancreatic, prostate, and breast cancers.5, 6 In this context, it is interesting to note that GPR31 can also be activated by acidic extracellular conditions, a hallmark of the tumor microenvironment.7In brief, GPR31 receptor has an important role in the regulation of cell migration, cancer metastasis, and inflammation. Its role in these processes makes it a significant target for potential therapeutic interventions in cancer and inflammatory diseases.
Gene ID:	436440
UniProt:	F8VQN3

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:300 Application Dilutions Western blot wb: 1:200
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	0.2 mL double distilled water (DDW).
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).