

**GPR91 Polyclonal Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP55977****Specification****GPR91 Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	<a href="#">Q9BXA5</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	39 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GPR91
Epitope Specificity	131-334/334
Isotype	IgG
<b>Purity</b>	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Multi-pass membrane protein.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Background Descriptions**

This gene encodes a G-protein-coupled receptor for succinate, an intermediate molecule of the citric acid cycle. It is involved in the promotion of hematopoietic progenitor cell development, and it has a potential role in renovascular hypertension which has known correlations to renal failure, diabetes and atherosclerosis. [provided by RefSeq, Oct 2009]

**GPR91 Polyclonal Antibody - Additional Information****Gene ID** 56670**Other Names**

Succinate receptor 1, G-protein coupled receptor 91, P2Y purinoceptor 1-like, SUCNR1, GPR91

**Target/Specificity**

Expressed specifically in kidney.

**Dilution**

<span class = "dilution\_WB">WB~~1:1000</span><br \><span class = "dilution\_IHC-P">IHC-P~~N/A</span><br \><span class = "dilution\_IHC-F">IHC-F~~N/A</span><br \><span class

=["dilution\\_IF">IF~1:50~200</span><br \><span class = "dilution\\_ICC">ICC~N/A</span><br \><span class = "dilution\\_E">E~N/A</span>](#)

### Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## GPR91 Polyclonal Antibody - Protein Information

**Name** SUCNR1 ([HGNC:4542](#))

**Synonyms** GPR91

### Function

G protein-coupled receptor for succinate able to mediate signaling through Gq/GNAQ or Gi/GNAI second messengers depending on the cell type and the processes regulated (By similarity) (PubMed:[15141213](#)), (PubMed:[23770096](#)), (PubMed:[34133934](#)). Succinate-SUCNR1 signaling serves as a link between metabolic stress, inflammation and energy homeostasis (PubMed:[18820681](#)), (PubMed:[34133934](#)). In macrophages, plays a range of immune-regulatory roles. During inflammation, succinate-SUCNR1 signaling may act as an anti-inflammatory mediator or boost inflammation depending on the inflammatory status of cells (By similarity). Hyperpolarizes M2 macrophages versus M1 phenotype through Gq signaling by regulating the transcription of genes involved in immune function (PubMed:[34133934](#)). In activated M1 macrophages, plays a pro-inflammatory role in response to LPS (By similarity). Expressed in dendritic cells, where it is involved in the sensing of immunological danger and enhances immunity. Mediates succinate triggered intracellular calcium mobilization, induces migratory responses and acts in synergy with Toll-like receptor ligands for the production of proinflammatory cytokines as well as an enhancement of antigen-specific activation of helper T cells (PubMed:[18820681](#)). In the small intestine, mediates the activation of tuft cells by dietary succinate and triggers type 2 immunity (By similarity). In adipocytes, plays an important role in the control of energy metabolism. In response to succinate, controls leptin expression in an AMPK-JNK-CEBPA-dependent as well as circadian clock-regulated manner (By similarity). In muscle tissue, is expressed in non-muscle cells and coordinates muscle remodeling in response to the succinate produced during exercise training in a paracrine manner (By similarity). In retina, acts as a mediator of vessel growth during retinal development. In response to succinate, regulates the production of angiogenic factors, including VEGF, by retinal ganglion neurons (By similarity).

### Cellular Location

Cell membrane; Multi-pass membrane protein

### Tissue Location

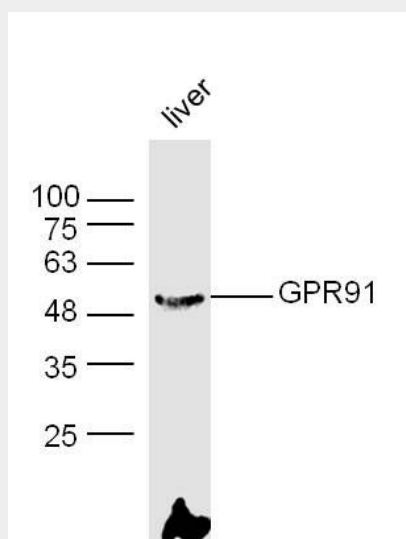
Expressed specifically in kidney (PubMed:11273702). Highly expressed in immature dendritic cells, expression rapidly downregulates after maturation. Also expressed in macrophages (PubMed:18820681).

## GPR91 Polyclonal Antibody - Protocols

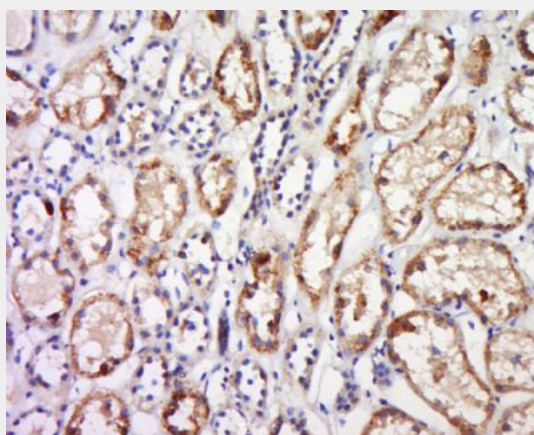
Provided below are standard protocols that you may find useful for product applications.

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

#### **GPR91 Polyclonal Antibody - Images**



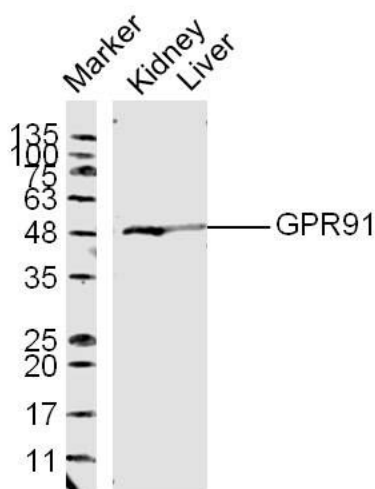
Western blot analysis of extracts from Liver tissue (mouse ) using GPR91 Antibody.



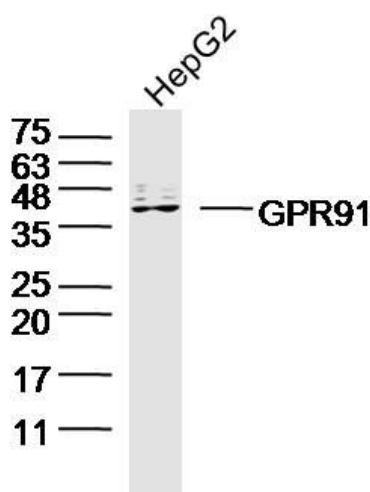
Tissue/cell: human kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

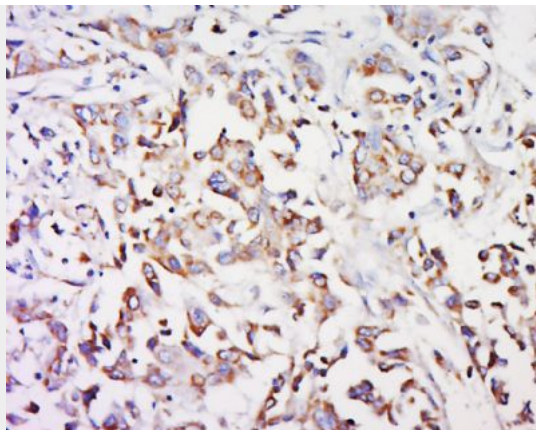
Incubation: Anti-GPR91 Polyclonal Antibody, Unconjugated(bs-15392R) 1:600, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Protein: 1.kidney lyates (mouse);2.liver lyates (mouse);  
Primary: Rabbit Anti-GPR91 (bs-15392R) at 1:300;  
Secondary: 800CW Conjugated Goat (polyclonal) Anti-Rabbit IgG(H+L) at 1: 10000;  
Predicted band size:39 kD Observed band size:49 kD



Sample: HepG2 Cell (Human) Lysate at 40 ug  
Primary: Anti-GPR91(bs-15392R)at 1/300 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
Predicted band size: 39kD  
Observed band size: 39kD



Tissue/cell: human breast cancer; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;  
Incubation: Anti-GPR91 Polyclonal Antibody, Unconjugated(bs-15392R) 1:600, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining