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GPR91 Rabbit pAb

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Catalog # AP55977

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9BXA5
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38698
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human GPR91
Epitope Specificity	131-334/334
Isotype	IgG
Purity	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]

Additional Information

Gene ID	56670
Other Names	Succinate receptor 1, G-protein coupled receptor 91, P2Y purinoceptor 1-like, SUCNR1 (HGNC:4542), GPR91
Target/Specificity	Expressed specifically in kidney.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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.

Protein Information

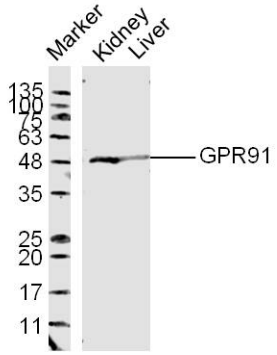
Name	SUCNR1 (HGNC:4542)
Synonyms	GPR91
Function	G protein-coupled receptor for succinate able to mediate signaling through Gq/GNAQ or Gi/GNAI second messengers depending on the cell type and the processes regulated (By similarity) (PubMed:15141213, PubMed:23770096, PubMed:34133934). Succinate-SUCNR1 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 intracelleular 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).

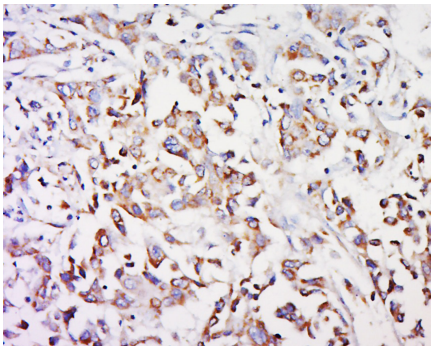
Background

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]

Images

Protein: 1.kidney lyates(mo);2.liver lyates(mo);
Primary: Rabbit Anti-GPR91 (AP55977) 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





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℃ for 20 min; Incubation: Anti-GPR91 Polyclonal Antibody, Unconjugated(AP55977) 1:600, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining