

## **GPR39 Antibody (Extracellular Domain)**

Rabbit Polyclonal Antibody Catalog # ALS10043

### **Specification**

## GPR39 Antibody (Extracellular Domain) - Product Information

Application IHC-P Primary Accession 043194

Reactivity Human, Mouse, Rabbit, Horse

Host Rabbit
Clonality Polyclonal
Calculated MW 51kDa KDa
Dilution IHC-P~~N/A

# GPR39 Antibody (Extracellular Domain) - Additional Information

**Gene ID 2863** 

#### **Other Names**

G-protein coupled receptor 39, GPR39

#### Target/Specificity

Human GPR39. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

# **Reconstitution & Storage**

Long term: -70°C; Short term: +4°C

### **Precautions**

GPR39 Antibody (Extracellular Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

# GPR39 Antibody (Extracellular Domain) - Protein Information

#### Name GPR39

# **Function**

Zinc-sensing receptor that can sense changes in extracellular Zn(2+), mediate Zn(2+) signal transmission, and participates in the regulation of numerous physiological processes including glucose homeostasis regulation, gastrointestinal mobility, hormone secretion and cell death (PubMed:<a href="http://www.uniprot.org/citations/18180304" target="\_blank">18180304</a>). Activation by Zn(2+) in keratinocytes increases the intracellular concentration of Ca(2+) and activates the ERK/MAPK and PI3K/AKT signaling pathways leading to epithelial repair (PubMed:<a href="http://www.uniprot.org/citations/20522546" target="\_blank">20522546</a>). Plays an essential role in normal wound healing by inducing the production of cytokines including the major inflammatory cytokine IL6 via the PKC/MAPK/CEBPB pathway (By similarity). Regulates adipose tissue metabolism, especially lipolysis, and regulates the function of lipases, such as hormone-sensitive lipase and adipose triglyceride lipase (By similarity). Plays a role in the





inhibition of cell death and protects against oxidative, endoplasmic reticulum and mitochondrial stress by inducing secretion of the cytoprotective pigment epithelium-derived growth factor (PEDF) and probably other protective transcripts in a GNA13/RHOA/SRE-dependent manner (PubMed:<a href="http://www.uniprot.org/citations/18180304" target="\_blank">18180304</a>). Forms dynamic heteroreceptor complexes with HTR1A and GALR1 depending on cell type or specific physiological states, resulting in signaling diversity: HTR1A-GPR39 shows additive increase in signaling along the serum response element (SRE) and NF-kappa-B pathways while GALR1 acts as an antagonist blocking SRE (PubMed:<a href="http://www.uniprot.org/citations/26365466" target="blank">26365466</a>).

#### **Cellular Location**

Cell membrane; Multi-pass membrane protein

#### **Tissue Location**

Expressed in many tissues, including the stomach, intestine and hypothalamus.

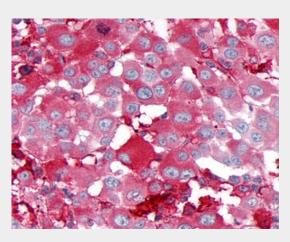
**Volume** 50 μl

# **GPR39 Antibody (Extracellular Domain) - Protocols**

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

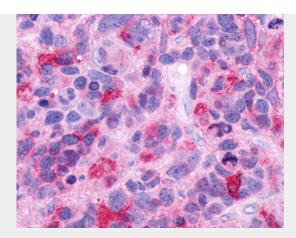
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### GPR39 Antibody (Extracellular Domain) - Images

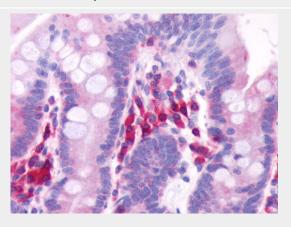


Anti-GPR39 antibody IHC of human Skin, Melanoma.





Anti-GPR39 antibody IHC of human Brain, Glioblastoma.



Anti-GPR39 antibody ALS10043 IHC of human small intestine.

# GPR39 Antibody (Extracellular Domain) - Background

Zn(2+) acts as a agonist. This receptor mediates its action by association with G proteins that activate a phosphatidylinositol-calcium second messenger system. Its effect is mediated mainly through G(q)-alpha and G(12)/G(13) proteins. Involved in regulation of body weight, gastrointestinal mobility, hormone secretion and cell death (By similarity).

# **GPR39 Antibody (Extracellular Domain) - References**

McKee K.K., et al. Genomics 46:426-434(1997). Kaighin V.A., et al. Submitted (OCT-2008) to the EMBL/GenBank/DDBJ databases. Ota T., et al. Nat. Genet. 36:40-45(2004). Hillier L.W., et al. Nature 434:724-731(2005). Storjohann L., et al. Biochemistry 47:9198-9207(2008).