

## **GPS2** Antibody - C-terminal region

Rabbit Polyclonal Antibody Catalog # Al16053

### **Specification**

## **GPS2 Antibody - C-terminal region - Product Information**

Application WB
Primary Accession Q13227
Other Accession XP\_005256674
Reactivity Human
Host Rabbit
Clonality Polyclonal
Calculated MW 35kDa KDa

# **GPS2** Antibody - C-terminal region - Additional Information

**Gene ID 2874** 

Alias Symbol GPS2,

**Other Names** 

G protein pathway suppressor 2, GPS-2, GPS2

# **Format**

Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.

#### **Reconstitution & Storage**

Add 50 &mu, I of distilled water. Final Anti-GPS2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.

#### **Precautions**

GPS2 Antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

# **GPS2 Antibody - C-terminal region - Protein Information**

### Name GPS2 (HGNC:4550)

#### **Function**

Key regulator of inflammation, lipid metabolism and mitochondrion homeostasis that acts by inhibiting the activity of the ubiquitin-conjugating enzyme UBE2N/Ubc13, thereby inhibiting 'Lys-63'- linked ubiquitination (By similarity). In the nucleus, can both acts as a corepressor and coactivator of transcription, depending on the context (PubMed:<a href="http://www.uniprot.org/citations/24943844" target="\_blank">24943844</a>). Acts as a transcription coactivator in adipocytes by promoting the recruitment of PPARG to promoters: acts by inhibiting the activity of the ubiquitin-conjugating enzyme UBE2N/Ubc13, leading to stabilization of KDM4A and subsequent histone H3 'Lys-9' (H3K9) demethylation (By similarity).

Promotes cholesterol efflux by acting as a transcription coactivator (PubMed:<a href="http://www.uniprot.org/citations/19481530" target="\_blank">19481530</a>). Acts as a



regulator of B-cell development by inhibiting UBE2N/Ubc13, thereby restricting the activation of Toll-like receptors (TLRs) and B-cell antigen receptors (BCRs) signaling pathways (By similarity). Acts as a key mediator of mitochondrial stress response: in response to mitochondrial depolarization, relocates from the mitochondria to the nucleus following desumoylation and specifically promotes expression of nuclear-encoded mitochondrial genes (PubMed: <a href="http://www.uniprot.org/citations/29499132" target=" blank">29499132</a>). Promotes transcription of nuclear-encoded mitochondrial genes by inhibiting UBE2N/Ubc13 (PubMed: <a href="http://www.uniprot.org/citations/29499132" target=" blank">29499132</a>). Can also act as a corepressor as part of the N-Cor repressor complex by repressing active PPARG (PubMed:<a href="http://www.uniprot.org/citations/19858209" target="\_blank">19858209</a>, PubMed:<a href="http://www.uniprot.org/citations/24943844" target="\_blank">24943844</a>). Plays an anti-inflammatory role in macrophages and is required for insulin sensitivity by acting as a corepressor (By similarity). Plays an anti-inflammatory role during the hepatic acute phase response by interacting with sumoylated NR1H2 and NR5A2 proteins, thereby preventing N-Cor corepressor complex dissociation (PubMed:<a href="http://www.uniprot.org/citations/20159957" target=" blank">20159957</a>). In the cytosol, also plays a non- transcriptional role by regulating insulin signaling and pro- inflammatory pathways (By similarity). In the cytoplasm, acts as a negative regulator of inflammation by inhibiting the pro-inflammatory TNF-alpha pathway; acts by repressing UBE2N/Ubc13 activity (By similarity). In the cytoplasm of adipocytes, restricts the activation of insulin signaling via inhibition of UBE2N/Ubc13-mediated ubiquitination of AKT (By similarity). Able to suppress G-protein- and mitogen-activated protein kinase-mediated signal transduction (PubMed: <a href="http://www.uniprot.org/citations/8943324" target=" blank">8943324</a>). Acts as a tumor-suppressor in liposarcoma (PubMed:<a href="http://www.uniprot.org/citations/27460081" target=" blank">27460081</a>).

#### **Cellular Location**

Nucleus Mitochondrion. Cytoplasm, cytosol. Note=Sumoylation regulates the subcellular location (PubMed:24943844). Relocates from the mitochondria to the nucleus following desumoylation, leading to mediate mitochondrial stress response (By similarity) {ECO:0000250|UniProtKB:Q921N8, ECO:0000269|PubMed:24943844}

**Tissue Location**Widely expressed..

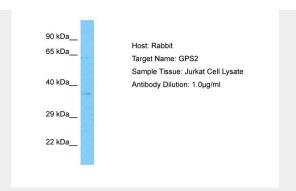
#### GPS2 Antibody - C-terminal region - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# **GPS2 Antibody - C-terminal region - Images**





Host: Rabbit Target Name: GPS2

Sample Tissue: Jurkat Whole cell lysate

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Antibody Dilution: 1.0µg/ml

# GPS2 Antibody - C-terminal region - Background

Suppresses G-protein- and mitogen-activated protein kinase-mediated signal transduction.

### **GPS2 Antibody - C-terminal region - References**

Spain B.H.,et al.Mol. Cell. Biol. 16:6698-6706(1996). Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases. Ota T.,et al.Nat. Genet. 36:40-45(2004). Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases. Bechtel S.,et al.BMC Genomics 8:399-399(2007).