

### Goat Anti-PPP1R15A / GADD34 Antibody

Peptide-affinity purified goat antibody Catalog # AF1853a

### **Specification**

## Goat Anti-PPP1R15A / GADD34 Antibody - Product Information

Application
Primary Accession
Other Accession
Reactivity
Host
Clonality
Concentration

Isotype Calculated MW WB 075807 NP 055145, 23645

Human, Mouse Goat Polyclonal 100ug/200ul

IgG 73478

# Goat Anti-PPP1R15A / GADD34 Antibody - Additional Information

#### **Gene ID 23645**

#### **Other Names**

Protein phosphatase 1 regulatory subunit 15A, Growth arrest and DNA damage-inducible protein GADD34, Myeloid differentiation primary response protein MyD116 homolog, PPP1R15A, GADD34

#### **Format**

0.5 mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

Goat Anti-PPP1R15A / GADD34 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### Goat Anti-PPP1R15A / GADD34 Antibody - Protein Information

#### Name PPP1R15A

# Synonyms GADD34

#### **Function**

Recruits the serine/threonine-protein phosphatase PPP1CA to prevents excessive phosphorylation of the translation initiation factor eIF-2A/EIF2S1, thereby reversing the shut-off of protein synthesis initiated by stress-inducible kinases and facilitating recovery of cells from stress (PubMed:<a href="http://www.uniprot.org/citations/26742780" target="\_blank">26742780</a>, PubMed:<a



href="http://www.uniprot.org/citations/26095357" target="\_blank">26095357</a>). Down-regulates the TGF-beta signaling pathway by promoting dephosphorylation of TGFB1 by PP1 (PubMed:<a href="http://www.uniprot.org/citations/14718519" target="\_blank">14718519</a>). May promote apoptosis by inducing p53/TP53 phosphorylation on 'Ser-15' (PubMed:<a href="http://www.uniprot.org/citations/14635196" target="\_blank">14635196</a>). Plays an essential role in autophagy by tuning translation during starvation, thus enabling lysosomal biogenesis and a sustained autophagic flux (PubMed:<a href="http://www.uniprot.org/citations/32978159" target=" blank">32978159</a>). Acts also a

href="http://www.uniprot.org/citations/32978159" target="\_blank">32978159</a>). Acts also a viral restriction factor by attenuating HIV-1 replication (PubMed:<a href="http://www.uniprot.org/citations/31778897" target="\_blank">31778897</a>).

Mechanistically, mediates the inhibition of HIV-1 TAR RNA-mediated translation (PubMed:<a href="http://www.uniprot.org/citations/31778897" target="blank">31778897</a>).

#### **Cellular Location**

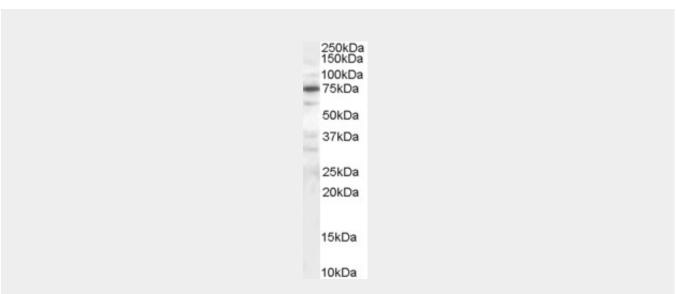
Endoplasmic reticulum membrane; Peripheral membrane protein; Cytoplasmic side Mitochondrion outer membrane; Peripheral membrane protein; Cytoplasmic side. Note=Associates with membranes via an N-terminal amphipathic intramembrane region

# Goat Anti-PPP1R15A / GADD34 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 Cytomety
- Cell Culture

#### Goat Anti-PPP1R15A / GADD34 Antibody - Images



AF1853a (0.1  $\mu$ g/ml) staining of HEPG2 cell lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

# Goat Anti-PPP1R15A / GADD34 Antibody - Background

This gene is a member of a group of genes whose transcript levels are increased following stressful





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growth arrest conditions and treatment with DNA-damaging agents. The induction of this gene by ionizing radiation occurs in certain cell lines regardless of p53 status, and its protein response is correlated with apoptosis following ionizing radiation.

# Goat Anti-PPP1R15A / GADD34 Antibody - References

EBNA3C interacts with Gadd34 and counteracts the unfolded protein response. Garrido JL, et al. Virol J, 2009 Dec 29. PMID 20040105.

Disruption of the PP1/GADD34 complex induces calreticulin exposure. Kepp O, et al. Cell Cycle, 2009 Dec. PMID 19901557.

Inhibition of protein kinase R activation and upregulation of GADD34 expression play a synergistic role in facilitating coronavirus replication by maintaining de novo protein synthesis in virus-infected cells. Wang X, et al. J Virol, 2009 Dec. PMID 19776135.

An upstream open reading frame regulates translation of GADD34 during cellular stresses that induce eIF2alpha phosphorylation. Lee YY, et al. J Biol Chem, 2009 Mar 13. PMID 19131336. Control of cellular GADD34 levels by the 26S proteasome. Brush MH, et al. Mol Cell Biol, 2008 Dec. PMID 18794359.