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Goat Anti-PPP1R15A / GADD34 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1853a

Specification

Goat Anti-PPP1R15A / GADD34 Antibody - Product Information

Application	**WB**
Primary Accession	O75807
Other Accession	NP_055145, 23645
Reactivity	**Human, Mouse**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**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 IgG/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:26742780, PubMed:<a

href="http://www.uniprot.org/citations/26095357" target="_blank">26095357). Down-regulates the TGF-beta signaling pathway by promoting dephosphorylation of TGFB1 by PP1 (PubMed:14718519). May promote apoptosis by inducing p53/TP53 phosphorylation on 'Ser-15' (PubMed:14635196). Plays an essential role in autophagy by tuning translation during starvation, thus enabling lysosomal biogenesis and a sustained autophagic flux (PubMed:32978159). Acts also a viral restriction factor by attenuating HIV-1 replication (PubMed:31778897). Mechanistically, mediates the inhibition of HIV-1 TAR RNA-mediated translation (PubMed:31778897).

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 µg/ml) staining of HEPG2 cell lysate (35 µg 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

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.
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