

GADD153 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10306**Specification**

GADD153 Antibody - Product Information

Application	WB, IHC, IP
Primary Accession	P35638
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	19175

GADD153 Antibody - Additional Information**Gene ID** 1649

Application & Usage	Western blotting (0.5-4 µg/ml), immunoprecipitation (10-20 µg/ml), and Immunohistochemistry (10-20 µg/ml). However, the optimal concentrations should be determined individually. The antibody recognizes 25 kDa GADD153 of human, mouse, and rat origins.
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Other Names

GADD153 , DDIT3 , 126337 , P35638 , CEBPZ , CHOP , CHOP10 , GADD153 , MGC4154

Target/Specificity

GADD 153

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.2 mg/ml) Protein A purified rabbit polyclonal antibody in phosphate-buffered saline (PBS) containing 30% glycerol, 0.5% BSA, and 0.01% thimerosal.

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

GADD153 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

GADD153 Antibody - Protein Information

Name DDIT3

Synonyms CHOP, CHOP10, GADD153

Function

Multifunctional transcription factor in endoplasmic reticulum (ER) stress response (PubMed:15322075, PubMed:15775988, PubMed:19672300). Plays an essential role in the response to a wide variety of cell stresses and induces cell cycle arrest and apoptosis in response to ER stress (PubMed:15322075, PubMed:15775988). Plays a dual role both as an inhibitor of CCAAT/enhancer-binding protein (C/EBP) function and as an activator of other genes (By similarity). Acts as a dominant-negative regulator of C/EBP-induced transcription: dimerizes with members of the C/EBP family, impairs their association with C/EBP binding sites in the promoter regions, and inhibits the expression of C/EBP regulated genes (By similarity). Positively regulates the transcription of TRIB3, IL6, IL8, IL23, TNFRSF10B/DR5, PPP1R15A/GADD34, BBC3/PUMA, BCL2L11/BIM and ERO1L (PubMed:15775988, PubMed:17709599, PubMed:22761832, PubMed:20876114). Negatively regulates; expression of BCL2 and MYOD1, ATF4-dependent transcriptional activation of asparagine synthetase (ASNS), CEBPA-dependent transcriptional activation of hepcidin (HAMP) and CEBPB-mediated expression of peroxisome proliferator-activated receptor gamma (PPARG) (PubMed:18940792, PubMed:19672300, PubMed:20829347). Together with ATF4, mediates ER- mediated cell death by promoting expression of genes involved in cellular amino acid metabolic processes, mRNA translation and the unfolded protein response (UPR) in response to ER stress (By similarity). Inhibits the canonical Wnt signaling pathway by binding to TCF7L2/TCF4, impairing its DNA-binding properties and repressing its transcriptional activity (PubMed:16434966). Plays a regulatory role in the inflammatory response through the induction of caspase-11 (CASP4/CASP11) which induces the activation of caspase-1 (CASP1) and both these caspases increase the activation of pro-IL1B to mature IL1B which is involved in the inflammatory response (By similarity). Acts as a major regulator of postnatal neovascularization through regulation of endothelial nitric oxide synthase (NOS3)-related signaling (By similarity).

Cellular Location

Cytoplasm. Nucleus Note=Present in the cytoplasm under non-stressed conditions and ER stress leads to its nuclear accumulation

GADD153 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 Cytometry](#)
- [Cell Culture](#)

GADD153 Antibody - Images**GADD153 Antibody - Background**

GADD153 has been described as a growth arrest and DNA damage-inducible gene that encodes a C/EBP-related nuclear protein. Expression of GADD153 is induced by a variety of cellular stresses, including nutrient deprivation and metabolic perturbations. GADD153 functions to block cells in G1 to S phase in cell cycle progression and acts by dimerizing with other C/EBP proteins to direct GADD153 dimers away from “classical” C/EBP binding sites. Thus GADD153 acts as a negative modulator of C/EBP-like proteins in certain terminally differentiated cells.