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Polyclonal Antibody to DNA Damage Inducible Transcript 3 (DDIT3)

DNA Damage Inducible Transcript 3
Catalog # AP74711

Product Information

Application	WB
Primary Accession	P35639
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	19189

Additional Information

Gene ID	13198
Other Names	CEBPZ; CHOP; CHOP10; GADD153; C/EBP-homologous protein 10; CCAAT/enhancer-binding protein homologous protein; Growth arrest and DNA damage-inducible GADD153
Target/Specificity	Mus musculus (Mouse)
Dilution	WB~~Western blotting: 0.2-2 □g/mL;1:250-2500 Immunohistochemistry: 5-20 □g/mL;1:25-100 Immunocytochemistry: 5-20 □g/mL;1:25-100 Optimal working dilutions must be determined by end user.
Format	PBS, pH7.4, containing 0.02% NaN3, 50% glycerol.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

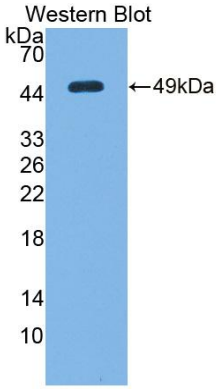
Name	Ddit3
Synonyms	Chop {ECO:0000303|PubMed:21285359}, Chop
Function	Multifunctional transcription factor in endoplasmic reticulum (ER) stress response (PubMed:15601821, PubMed:19752026). Plays an essential role in the response to a wide variety of cell stresses and induces cell cycle arrest and apoptosis in response to ER stress (PubMed:15601821, PubMed:19752026). Plays a dual role both as an inhibitor of CCAAT/enhancer-binding protein (C/EBP) function and as an activator of other genes (PubMed:1547942). 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 (PubMed:1547942). Positively regulates the transcription of TRIB3, IL6, IL8, IL23, TNFRSF10B/DR5, PPP1R15A/GADD34, BBC3/PUMA, BCL2L11/BIM and ERO1L (PubMed:12706815, PubMed:14684614, PubMed:15775988, PubMed:19919955, PubMed:21159964). 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) (By similarity). 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 (PubMed:22242125, PubMed:23624402). Inhibits the canonical Wnt signaling pathway by binding to TCF7L2/TCF4, impairing its DNA-binding properties and repressing its transcriptional activity (By similarity). 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 (PubMed:16670335). Acts as a major regulator of postnatal neovascularization through regulation of endothelial nitric oxide synthase (NOS3)-related signaling (PubMed:22265908).

Cellular Location

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

Images



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