

## Anti-DDIT3 Antibody (9H182)

## Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	9H182
Purification:	Affinity-chromatography

## Applications

Verified Activity:	Overlay Peak curve showing Hela cells stained with TMAH-00334 (red line) at 1:50. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1µg/1*10 <sup>6</sup> cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG (H+L) at 1:200 dilution for 35min at 4°C. Control antibody (green line) was rabbit IgG (1µg/1*10 <sup>6</sup> cells) used under the same conditions. Acquisition of >10,000 events was performed.
Application:	ELISA, FCM
Recommended	FCM:1:50-1:200.

## Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	A synthetic peptide: Human DDIT3
Antigen Species:	Human
Gene ID:	1649
Uniprot ID:	P35638
Synonyms:	Growth arrest and DNA damage-inducible protein GADD153;CHOP-10;C/EBP-homologous protein;GADD153;C/EBP zeta;CCAAT/enhancer-binding protein homologous protein;DDIT-3;CHOP;DNA damage-inducible transcript 3 protein;DDIT3;C/EBP-homologous protein 10;CHOP10
Biology Area:	Epigenetics and Nuclear Signaling, Developmental biology, Metabolism, Stem cells

## Research Background

Multifunctional transcription factor in endoplasmic reticulum (ER) stress response. 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. Plays a dual role both as an inhibitor of CCAAT/enhancer-binding protein (C/EBP) function and as an activator of other genes. 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. Positively regulates the transcription of TRIB3, IL6, IL8, IL23, TNFRSF10B/DR5,

## A DRUG SCREENING EXPERT

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PPP1R15A/GADD34, BBC3/PUMA, BCL2L11/BIM and ERO1L. 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). 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. Inhibits the canonical Wnt signaling pathway by binding to TCF7L2/TCF4, impairing its DNA-binding properties and repressing its transcriptional activity. 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. Acts as a major regulator of postnatal neovascularization through regulation of endothelial nitric oxide synthase (NOS3)-related signaling.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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