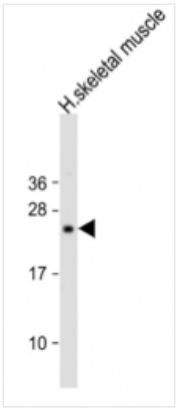
DDIT3 Antibody – Rabbit Polyclonal

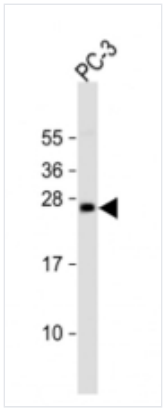
PRODUCT OVERVIEW

Product Name	DDIT3, Polyclonal Antibody
Full Product Name	DDIT3, CT (A135) (DDIT3, CHOP, CHOP10, GADD153, DNA damage-inducible transcript 3 protein, C/EBP-homologous protein, C/EBP-homologous protein 10, Growth arrest and DNA damage-inducible protein GADD153) (MaxLight 405)
Product Gene Name	anti-DDIT3 antibody
Product Synonym Names	DDIT3; CHOP; CHOP10; GADD153; DNA damage-inducible transcript 3 protein; C/EBP-homologous protein; C/EBP-homologous protein 10; Growth arrest and DNA damage-inducible protein GADD153
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A and Peptide Affinity Chromatography.
Specificity	Recognizes human DDIT3. Species crossreactivity: mouse
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	21.3kDa (189aa), confirmed by MALDI-TOF.
OMIM	126337
3D Structure	ModBase 3D Structure for P35638
Immunogen	KLH-conjugated synthetic peptide mapping to a fragment of residues within amino acids 120-149 in the C-terminal region of human DDIT3. Species sequence homology: bovine, hamster
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-DDIT3 antibody	Antibodies; Transcription Factors
Applications Tested/Suitable for anti-DDIT3 antibody	Western Blot (WB), Flow Cytometry (FC/FACS), Immunofluorescence (IF), FLISA
Application Notes for anti-DDIT3 antibody	Applications are based on unconjugated antibody.
Related Product Information for anti-DDIT3 antibody	This gene encodes a member of the CCAAT/enhancer-binding protein (C/EBP) family of transcription factors. The protein functions as a dominant-negative inhibitor by forming heterodimers with other C/EBP members, such as C/EBP and LAP (liver activator protein), and preventing their DNA binding activity. The protein is implicated in adipogenesis and erythropoiesis, is activated by endoplasmic reticulum stress, and promotes apoptosis. Fusion of this gene and FUS on chromosome 16 or EWSR1 on chromosome 22 induced by translocation generates chimeric proteins in myxoid liposarcomas or Ewing sarcoma. Multiple alternatively spliced transcript variants encoding two isoforms with different length have been identified.

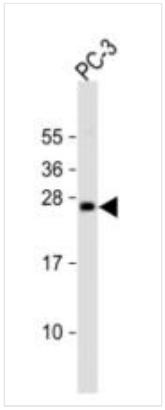
Product References and Citations for anti-DDIT3 antibody	Park, S.H., et al. J. Immunol. 185(9):5522-5530(2010). Goodall, J.C., et al. Proc. Natl. Acad. Sci. U.S.A. 107(41):17698-17703(2010). Zhang, H.M., et al. J. Virol. 84(17):8446-8459(2010). Cazanave, S.C., et al. Am. J. Physiol. Gastrointest. Liver Physiol. 299 (1), G236-G243 (2010): Wang, Y.L., et al. J. Exp. Clin. Cancer Res. 29, 54 (2010).
Other Notes	Small volumes of anti-DDIT3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for DDIT3 purchase	MBS6291271 is an antibody targeting DDIT3. Also known as DDIT3, CT (A135) (DDIT3, CHOP, CHOP10, GADD153, DNA damage-inducible transcript 3 protein, C/EBP-homologous protein, C/EBP-homologous protein 10, Growth arrest and DNA damage-inducible protein GADD153) (MaxLight 405). Reactive in Human, Mouse. Host: Rabbit.



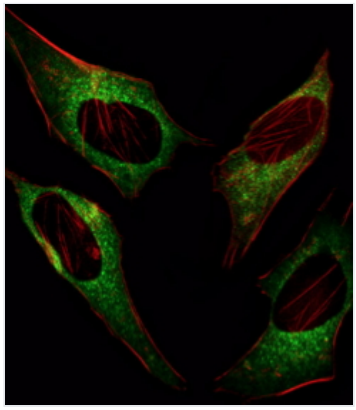
Western Blot (WB) of anti-DDIT3 antibody
Western Blot analysis in human skeletal muscle lysate (20ug/lane) using MBS6010216 (1:2000). Secondary IgG (HRP) Goat Anti-Rabbit at 1:10000 dilution. Predicted band size: 19kD Blocking/Dilution buffer: 5% NFDM/TBST.



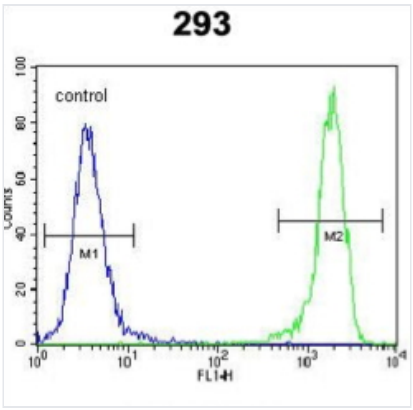
Western Blot (WB) of anti-DDIT3 antibody
Western Blot analysis in PC-3 whole cell lysate (20ug/lane) using MBS6010216 (1:2000). Secondary IgG (HRP) Goat Anti-Rabbit at 1:10000 dilution. Predicted band size: 19kD Blocking/Dilution buffer: 5% NFDM/TBST.



Western Blot (WB) of anti-DDIT3 antibody
Western Blot analysis in PC-3 whole cell lysate (20ug/lane) using MBS6010216 (1:2000). Secondary IgG (HRP) Goat Anti-Rabbit at 1:10000 dilution. Predicted band size: 19kD Blocking/Dilution buffer: 5% NFDM/TBST.



Immunofluorescence (IF) of anti-DDIT3 antibody
Fluorescent image of Hela cells stained withMBS6010216. Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with MBS6010216 (1:25, 1 h at 37 degree C). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37 degree C). Cytoplasmic actin was counterstained with Alexa Fluor 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37 degree C). DDIT3 immunoreactivity is localized to Cytoplasm significantly.



Flow Cytometry (FC/FACS) of anti-DDIT3 antibody
Flow Cytometric analysis of 293 cells using MBS6010216 (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for DDIT3. It may not necessarily be applicable to this product.

NCBI GI #	21361118
NCBI GeneID	1649
NCBI Accession #	NP_004074
UniProt Primary Accession #	P35638
UniProt Secondary Accession #	F8VS99
UniProt Related Accession #	P35638
GenBank Nucleotide #	NM_004083.5
NCBI Official Full Name	DNA damage-inducible transcript 3 protein isoform 2
NCBI Official Synonym Full Names	DNA damage inducible transcript 3
NCBI Official Symbol	DDIT3
NCBI Official Synonym Symbols	CHOP; CEBPZ; CHOP10; CHOP-10; GADD153; C/EBPzeta
UniProt Protein Name	DNA damage-inducible transcript 3 protein
UniProt Synonym Protein Names	C/EBP zeta; C/EBP-homologous protein; CHOP; C/EBP-homologous protein 10; CHOP-10; CCAAT/enhancer-binding protein homologous protein; Growth arrest and DNA damage-inducible protein GADD153
Protein Family	DNA damage-inducible transcript 3 protein
UniProt Gene Name	DDIT3
UniProt Synonym Gene Names	CHOP; CHOP10; GADD153; DDIT-3; CHOP; CHOP-10
UniProt Entry Name	DDIT3_HUMAN
NCBI Protein Information	DNA damage-inducible transcript 3 protein

UniProt Comments for DDIT3	CHOP: a transcriptional-regulatory protein of the bZIP family. Inhibits the DNA-binding activity of C/EBP and LAP by forming heterodimers that cannot bind DNA. May play an important role in melanoma progression. CK2-mediated phosphorylation inhibits its transcriptional activity. Up-regulates IL-6 transcription by trapping negative regulating NF-IL6 isoform. Protein type: Autophagy; Transcription factor; DNA-binding; Oncoprotein Chromosomal Location of Human Ortholog: 12q13.1-q13.2 Cellular Component: nucleoplasm; late endosome; nucleus; cytosol Molecular Function: leucine zipper domain binding; protein binding; DNA binding; protein heterodimerization activity; transcription factor binding; transcription factor activity; transcription corepressor activity Biological Process: proteasomal ubiquitin-dependent protein catabolic process; positive regulation of transcription, DNA-dependent; negative regulation of transcription from RNA polymerase II promoter; positive regulation of interleukin-8 production; regulation of transcription, DNA-dependent; positive regulation of neuron apoptosis; cell cycle arrest; ER overload response; regulation of transcription in response to stress; negative regulation of protein kinase B signaling cascade; Wnt receptor signaling pathway; unfolded protein response; negative regulation of transcription factor activity; blood vessel maturation; mRNA transcription from RNA polymerase II promoter; response to unfolded protein; response to starvation; unfolded protein response, activation of signaling protein activity; cellular protein metabolic process; cell redox homeostasis; release of sequestered calcium ion into cytosol; positive regulation of transcription from RNA polymerase II promoter; negative regulation of transcription, DNA-dependent; inhibition of CREB transcription factor; negative regulation of myoblast differentiation; response to DNA damage stimulus Disease: Myxoid Liposarcoma
Research Articles on DDIT3	**1.** asthmatic patients exhibited aberrant Chop expression along with endoplasmic reticulum stress
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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