

Product datasheet for **KN304365**

Ddit3 Mouse Gene Knockout Kit (CRISPR)

Product data:

Product Type:	Knockout Kits (CRISPR)
Format:	2 gRNA vectors, 1 GFP-puro donor, 1 scramble control
Donor DNA:	GFP-puro
Symbol:	Ddit3
Locus ID:	13198
Components:	<p>KN304365G1, Ddit3 gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)</p> <p>KN304365G2, Ddit3 gRNA vector 2 in pCas-Guide CRISPR vector (GE100002)</p> <p>KN304365D, donor DNA containing left and right homologous arms and GFP-puro functional cassette.</p> <p>GE100003, scramble sequence in pCas-Guide vector</p>
RefSeq:	NM_001290183 , NM_007837
UniProt ID:	P35639
Synonyms:	chop; CHOP-10; CHOP10; gadd153
Summary:	<p>Multifunctional transcription factor in 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, 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). 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.[UniProtKB/Swiss-Prot Function]</p>



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Product images:

