bs-5177R **[Primary Antibody]**

phospho-DDIT3 (Ser30) Rabbit pAb

www.bioss.com.cn
sales@bioss.com.cn
techsupport@bioss.com.cn
400-901-9800

DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 1649 **SWISS:** P35638

Target: DDIT3 (Ser30)

Immunogen: KLH conjugated Synthesised phosphopeptide derived from human GADD153 around the phosphorylation site of Ser30: VL(p-S)SD.

Purification: affinity purified by Protein A

Concentration: 1mg/ml

Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Background: 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. [provided by RefSeq, Aug 2010]. Function : 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.

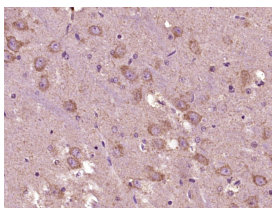
Applications: **IHC-P** (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1μg/Test)

Reactivity: Human, Rat (predicted: Mouse, Rabbit, Pig, Sheep, Cow, Dog)

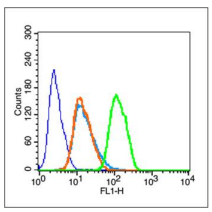
Predicted MW.: 19 kDa

Subcellular Location: Cytoplasm ,Nucleus

VALIDATION IMAGES



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in



Blank control (blue line): Hela(fixed with 70% ethanol (Overnight at 4°C) and then

sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-DDIT3 (Ser30)) Polyclonal Antibody, Unconjugated (bs-5177R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

permeabilized with 90% ice-cold methanol for 30 min on ice) Primary Antibody (green line): Rabbit Anti-spho-DDIT3 (Ser30) antibody (bs-5177R),Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG . Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC,Dilution: 1µg /test.

SELECTED CITATIONS

- **[IF=6.706]** Yujie Zhong. et al. Diosgenin Inhibits ROS Generation by Modulating NOX4 and Mitochondrial Respiratory Chain and Suppresses Apoptosis in Diabetic Nephropathy. NUTRIENTS. 2023 Jan;15(9):2164 WB ;Rat,Human. 10.3390/nu15092164
- **[IF=6.706]** Yujie Zhong. et al. Diosgenin Ameliorated Type II Diabetes-Associated Nonalcoholic Fatty Liver Disease through Inhibiting De Novo Lipogenesis and Improving Fatty Acid Oxidation and Mitochondrial Function in Rats. NUTRIENTS. 2022 Jan;14(23):4994 WB ;Rat. 36501024
- **[IF=6.284]** Yujie Zhong. et al. Inhibition of ER stress attenuates kidney injury and apoptosis induced by 3-MCPD via regulating mitochondrial fission/fusion and Ca 2+ homeostasis. 2021 Mar 02 WB ;Rat. 33651226
- **[IF=6.023]** Yujie Zhong. et al. Jujuboside A ameliorates high fat diet and streptozotocin induced diabetic nephropathy via suppressing oxidative stress, apoptosis, and enhancing autophagy. Food Chem Toxicol. 2022 Jan;159:112697 WB ;Rat. 34826549
- **[IF=5.396]** Yujie Zhong. et al. Dioscin relieves diabetic nephropathy via suppressing oxidative stress, apoptosis, and improving mitochondrial quality and quantity control. Food Funct. 2022 Feb;: WB ;Rat. 35262539