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# Anti-DDIT3/Chop Rabbit Monoclonal Antibody

**Catalog Number:** M00311

## Overview

| | |
|---|---|
| Product Name | Anti-DDIT3/Chop Rabbit Monoclonal Antibody |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-DDIT3/Chop Rabbit Monoclonal Antibody catalog # M00311. Tested in WB, IHC, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat. |
| Application | Flow Cytometry, IHC, WB |
| Clonality | Monoclonal AOHF-4 |
| Formulation | Rabbit IgG in stabilizing components, phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.<br>*This antibody is supplied in a stabilized formulation.<br>Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required. |
| Storage Instructions | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | P35638 |

## Technical Details

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| Immunogen | A synthesized peptide derived from human DDIT3 |
| Isotype | Rabbit IgG |
| Form | Liquid |
| Concentration | 0.5mg/ml |
| Purification | Affinity-chromatography |
| Suggested Dilutions | WB 1:500-2000<br>IHC 1:50-200<br>FC 1:20 |

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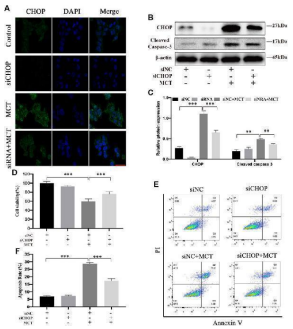
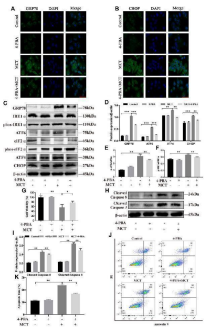
# Anti-DDIT3/Chop Rabbit Monoclonal Antibody (M00311) Images



CHOP siRNA partially decreases MCT-induced apoptosis of primary rat hepatocytes. After pretreatment with CHOP siRNA (100 nM) or siNC (100 nM) for 24 h, the hepatocytes were treated with or without 300 uM of MCT for another 36 h. (A) Representative immunofluorescence photomicrographs showing the location of CHOP in hepatocytes from different groups. Scale bar = 20 uM. (B) Western blot was used to detect the expression of CHOP and cleaved caspase-3. (C) Quantitative analysis of protein levels in A. (D) The apoptosis rate of primary rat hepatocytes was detected by Annexin-V/PI staining. The Q1 quadrant stands for cell death induced by mechanical damage or necrotic cells, the Q2 quadrant stands for late apoptosis cells, the Q3 quadrant stands for early apoptosis cells, and the Q4 quadrant stands for normal cells. The sum of cell apoptosis included early and late apoptosis cells (E) The percentages of apoptosis cells were measured by flow cytometry. (F) Hepatocytes viability was detected by CCK-8 assay. Data are presented as mean ± SD error of three independent experiments. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ compared to control.Index in PubMed under a CC BY license. PMID: 34108882



Inhibition of MCT-induced ER stress can partly protect primary rat hepatocytes from apoptosis. After pretreatment with 4-PBA (0.5 mM) for 4 h, the hepatocytes were treated with or without 300 uM of MCT for another 36 h. (A) Representative immunofluorescence photomicrographs showing the location of GRP78 in hepatocytes from different groups. (B) Representative immunofluorescence photomicrographs showing the location of CHOP in hepatocytes from different groups. Scale bar = 20 uM. (C) Detection of ER stress-related proteins, including GRP78, IRE1 alpha, p-IRE1 alpha, ATF6, eIF2 alpha, p-eIF2 alpha, ATF4, and CHOP by western blot. (D–F) Quantitative analysis of protein levels in C. (G) The hepatocytes viability was detected by CCK-8 assay. (H) Representative western blot of cleaved-caspase eight and cleaved-caspase three in hepatocytes. (I) Quantitative analysis of protein levels in G. (J) Representative apoptosis rate measured by Annexin-V/PI staining. The Q1 quadrant stands for cell death induced by mechanical damage or necrotic cells, the Q2 quadrant stands for late apoptosis cells, the Q3 quadrant stands for early apoptosis cells, and the Q4 quadrant stands for normal cells. The sum of cell apoptosis included early and late apoptosis cells. (K) The results of quantitative analyses of apoptosis rate. Data are presented as mean ± SD error of three independent experiments. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ compared to control.Index in PubMed under a CC BY license. PMID: 34108882

Western blot analysis of DDIT3 using anti-DDIT3 antibody (M00311). Electrophoresis was performed on a 5-20% SDS-

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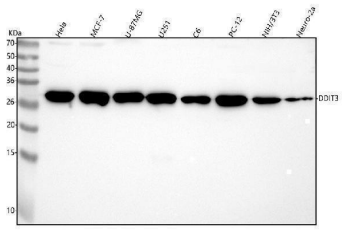


PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human U-87MG whole cell lysates, Lane 4: human U251 whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: rat PC-12 whole cell lysates, Lane 7: mouse NIH/3T3 whole cell lysates, Lane 8: mouse Neuro-2a whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-DDIT3 antigen affinity purified monoclonal antibody (Catalog # M00311) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:500 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for DDIT3 at approximately 29 kDa. The expected band size for DDIT3 is at 20 kDa.

## 4 Publications Citing This Product

1. PubMed ID: 10.3892/mmr.2019.10175, Effect of endoplasmic reticulum stress involved in manganese□induced neurotoxicity in rats

2. PubMed ID: 10.1016/j.physbeh.2021.113312, The chemical chaperon 4-phenyl butyric acid restored high-fat diet- induced hippocampal insulin content and insulin receptor level reduction along with spatial learning and memory deficits in male rats

3. PubMed ID: 33412188, Binayi F,Zardooz H,Ghasemi R,Hedayati M,Askari S,Pouriran R,Sahraei M.The chemical chaperon 4-phenyl butyric acid restored high-fat diet- induced hippocampal insulin content and insulin receptor level reduction along with spatial learning and memory defic

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