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antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Caspase-3 (P10)/CASP3 Antibody

Catalog Number: PA1302-2

About CASP3

Caspase 3 is a caspase protein which interacts with Survivin, XIAP, CFLAR, Caspase 8, HCLS1, Deleted in Colorectal Cancer, TRAF3 and GroEL. This gene which is located at 4q35 encodes a protein that is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes that undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. This protein cleaves and activates caspases 6, 7, and 9; and the protein itself is processed by caspases 8, 9, and 10. It is the predominant caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease. And the caspase-3 activation in heart failure sequentially cleaves SRF and generates a truncated SRF that appears to function as a dominant-negative transcription factor. Additionally, the caspase-3 influence on bone mineral density should be considered in any in vivo application of caspase-3 inhibitors to the treatment of human disease. In erythroid precursors undergoing terminal differentiation, Hsp70 prevents active CASP3 from cleaving GATA1 and inducing apoptosis.

Overview

Product Name	Anti-Caspase-3 (P10)/CASP3 Antibody
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Caspase-3 (P10)/CASP3 Antibody catalog # PA1302-2. Tested in IHC, WB applications. This antibody reacts with Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal JLT-12
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P42574

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Caspase-3(P10), different from the related rat sequence by one amino acid.
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross reactivity with other proteins

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Form	Lyophilized
Concentration	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Rat, Mouse, By Heat Western blot, 0.1-0.5ug/ml, Mouse, Rat

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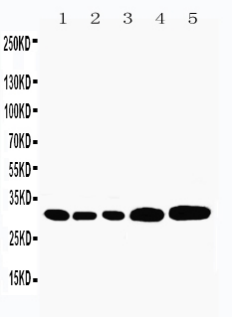
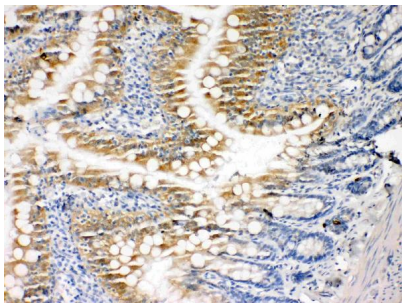
Anti-Caspase-3 (P10)/CASP3 Antibody (PA1302-2) Images



Anti-Caspase-3(P10) antibody, PA1302-2, Western blotting
Lane 1: Rat Liver Tissue Lysate
Lane 2: Rat Thymus Tissue Lysate
Lane 3: Rat Spleen Tissue Lysate
Lane 4: HEPA Cell Lysate
Lane 5: NEURO Cell Lysate



Anti-Caspase-3(P10) antibody, PA1302-2, IHC(P)
IHC(P): Rat Intestine Tissue

96 Publications Citing This Product

1. PubMed ID: 32190700, Fu Y,Wang Y,Gao X,Li H,Yuan Y.Dynamic Expression of HDAC3 in db/db Mouse RGCs and Its Relationship with Apoptosis and Autophagy.J Diabetes Res.2020 Mar 1;2020:6086780.doi:10.1155/2020/6086780.PMID: 32190700;PMCID:PMC7071812.

2. PubMed ID: 32016991, Wei JL,Wu CJ,Chen JJ,Shang FT,Guo SG,Zhang XC,Liu H.LncRNA NEAT1 promotes the progression of sepsis-induced myocardial cell injury by sponging miR-144-3p.Eur Rev Med Pharmacol Sci.2020 Jan;24(2):851-861.doi:10.26355/eurrev_202001_20069.PMID:32016991.

3. PubMed ID: 33284899, Yue W,Cunlin G,Lu H,Yuanqing Z,Yanjun T,Qiong W. Neuroprotective effect of intermittent hypobaric hypoxia preconditioning on cerebral ischemia/reperfusion in rats. Int J Clin Exp Pathol.2020 Nov 1;13(11):2860-2869.PMID:33284899;PMCID:PMC7716138.

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