

Anti-Caspase 3/CASP3 Antibody

Catalog Number: PA1849

About CASP3

Caspase 3 (caspase 3, apoptosis-related cysteine peptidase) is a caspase protein that interacts with caspase 8 and caspase 9, also known as Caspase-3, PARP CLEAVAGE PROTEASE, APOPAIN, CPP32, CPP32B, YAMA. It is a member of the cysteine-aspartic acid protease (caspase) family. PCR analysis of 16 human tissues revealed expression of full-length CASP3, as well as CASP3s at somewhat lower levels, in all tissues tested. Western blot analysis of 3 cell lines revealed the prominent CASP3 band at 32 kD and CASP3s at 20 kD. Several human cancer cell lines showed coexpression of both variants at the mRNA and protein levels. Overexpression of the catalytically inactive CASP3s by human kidney cells offered some resistance to inducers of apoptosis, and CASP3s accumulation could be enhanced with addition of proteasome inhibitors. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Alternative splicing of this gene results in two transcript variants that encode the same protein. Encoded by the CASP3 gene, CASP3 orthologs have been identified in numerous mammals for which complete genome data are available. Unique orthologs are also present in birds, lizards, lissamphibians, and teleosts. Nicholson et al. developed a potent peptide aldehyde inhibitor and showed that it prevented apoptotic events in vitro, suggesting that apopain/CPP32 is important for the initiation of apoptotic cell death.

Overview

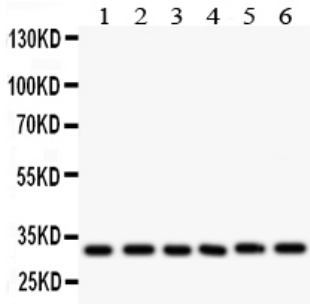
Product Name	Anti-Caspase 3/CASP3 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Caspase 3/CASP3 Antibody catalog # PA1849. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2mg Na ₂ HPO ₄ .
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-terminal of human Caspase 3, identical to the related mouse sequence, and 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.

Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Rat, Mouse</p>

Anti-Caspase 3/CASP3 Antibody (PA1849) Images



Anti-CASP3 antibody, PA1849, Western blotting
All lanes: Anti CASP3 (PA1849) at 0.5ug/ml
Lane 1: Rat Cardiac Muscle Tissue Lysate at 50ug
Lane 2: Rat Liver Tissue Lysate at 50ug
Lane 3: Rat Thymus Tissue Lysate at 50ug
Lane 4: MCF-7 Whole Cell Lysate at 40ug
Lane 5: SMMC Whole Cell Lysate at 40ug
Lane 6: HT1080 Whole Cell Lysate at 40ug
Predicted bind size: 31KD
Observed bind size: 31KD

116 Publications Citing This Product

1. PubMed ID: 10.1016/j.joen.2020.03.010, Effects of Calcitonin Gene-related Peptide on Dental Pulp Stem Cell Viability, Proliferation, and Differentiation
2. PubMed ID: -, Lu Kong, Yongya Wu, Wangcheng Hu, Lin Liu, Yuying Xue, Geyu Liang, Mechanisms underlying reproductive toxicity induced by nickel nanoparticles identified by comprehensive gene expression analysis in GC-1 spg cells, Environmental Pollution, 2021, 116556, ISSN 0269-7
3. PubMed ID: -, Gang Li, Jing Zhou, Mengyu Sun, Juren Cen, Jing Xu, Role of luteolin extracted from Clerodendrum cyrtophyllum Turcz leaves in protecting HepG2 cells from TBHP-induced oxidative stress and its cytotoxicity, genotoxicity, Journal of Functional Foods, Volume 74, 2

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