

## Anti-Caspase-3 (P10)/CASP3 Antibody

Catalog Number: PA1302-1

### 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

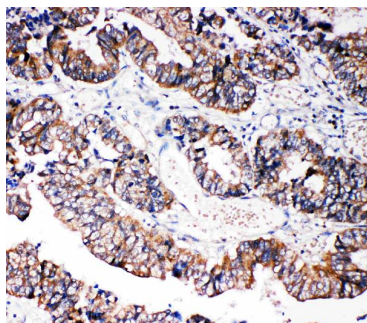
Product Name	Anti-Caspase-3 (P10)/CASP3 Antibody
Reactive Species	Human
Description	Boster Bio Anti-Caspase-3 (P10)/CASP3 Antibody catalog # PA1302-1. Tested in IHC, ICC, WB applications. This antibody reacts with Human.
Application	IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg 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

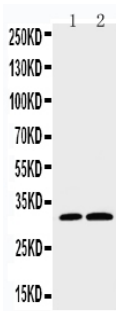
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Caspase-3(p10).
Predicted Reactive Species	Hamster
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
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>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat</p> <p>Immunocytochemistry , 0.5- 1ug/ml, Human, -</p> <p>Western blot, 0.1-0.5ug/ml, Human</p>

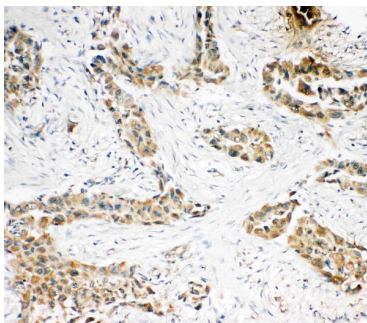
## Anti-Caspase-3 (P10)/CASP3 Antibody (PA1302-1) Images



Anti-Caspase-3(P10), PA1302-1, IHC(P)  
IHC(P): Human Intestinal Cancer Tissue



Anti-Caspase-3(P10), PA1302-1, Western blotting  
Lane 1: HELA Cell Lysate  
Lane 2: SMMC Cell Lysate



Anti-Caspase-3(P10), PA1302-1, IHC(P)  
IHC(P): Human Lung Cancer Tissue

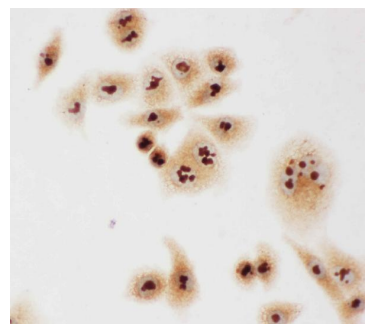


Figure 4. ICC analysis of Caspase-3(P10) using anti-Caspase-3(P10) antibody (PA1302-1).  
Caspase-3(P10) was detected in immunocytochemical section of A549 cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 1ug/ml rabbit anti-Caspase-3(P10) Antibody (PA1302-1) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

## 103 Publications Citing This Product

1. PubMed ID: -, Ahmed S. Ahmed, JAK-1/STAT-3 pathway mediated role in aging cerebellar cortex degenerative changes of albino wistar rats, Translational Research in Anatomy, 2020, 100089, ISSN 2214-854X, <https://doi.org/10.1016/j.tria.2020.100089>.

2. 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

3. PubMed ID: 33044585, Yu Y, Wang Y, Fei X, Song Z, Xie F, Yang F, Liu X, Xu Z, Wang G. All-Trans Retinoic Acid Prevented Vein Grafts Stenosis by Inhibiting Rb-E2F Mediated Cell Cycle Progression and KLF5-RARalpha Interaction in Human Vein Smooth Muscle Cells. Cardiovasc Drugs Ther. 2020 Oct

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