

Datasheet for ABIN3043802

anti-Caspase 3 antibody (AA 67-175)

5 Images

103 Publications



[Go to Product page](#)

Overview

Quantity:	100 µg
Target:	Caspase 3 (CASP3)
Binding Specificity:	AA 67-175
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Caspase 3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Caspase-3(CASP3) detection. Tested with WB, IHC-P in Human,Mouse,Rat.
Immunogen:	E.coli-derived human Caspase 3 recombinant protein (Position: T67-D175). Human Caspase 3 shares 86% and 90% amino acid (aa) sequences identity with mouse and rat Caspase 3, respectively.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	<p>Rabbit IgG polyclonal antibody for Caspase-3(CASP3) detection. Tested with WB, IHC-P in Human,Mouse,Rat.</p> <p>Gene Name: caspase 3, apoptosis-related cysteine peptidase</p> <p>Protein Name: Caspase-3</p>

Product Details

Purification: Immunogen affinity purified.

Target Details

Target: Caspase 3 (CASP3)

Alternative Name: CASP3 ([CASP3 Products](#))

Background: 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 on 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. 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.

Synonyms: A830040C14Rik antibody|Apopain antibody|Apopain precursor antibody|CASP 3 antibody|CASP-3 antibody|CASP3 antibody|CASP3_HUMAN antibody|Casp3a antibody|Caspase 3 antibody|Caspase 3 apoptosis related cysteine protease antibody|Caspase 3 p12 subunit antibody|Caspase 3 p17 subunit antibody|Caspase 3, apoptosis-related cysteine peptidase antibody|Caspase 3, apoptosis-related cysteine protease antibody|Caspase 3, apoptosis-related cysteine protease a antibody|Caspase-3 subunit p12 antibody|Caspase3 antibody|CC3 antibody|CPP 32 antibody|CPP-32 antibody|CPP32 antibody|CPP32B antibody|Cysteine protease CPP32 antibody| EC 3.4.22.56 antibody|Human cysteine protease CPP32 isoform alpha mRNA complete cds antibody|ICE3 antibody|LICE antibody|mlly antibody|OTTHUMP00000165052 antibody|OTTHUMP00000165053 antibody|OTTHUMP00000165054 antibody|PARP cleavage protease antibody|Procaspase3 antibody|Protein Yama antibody|SCA 1 antibody|SCA-1 antibody|SCA1 antibody|SREBP cleavage activity 1 antibody|Yama antibody|Yama protein antibody

Gene ID: 836

UniProt: [P42574](#)

Target Details

Pathways: [Apoptosis](#), [Caspase Cascade in Apoptosis](#), [Sensory Perception of Sound](#), [ER-Nucleus Signaling](#), [Positive Regulation of Endopeptidase Activity](#), [Activated T Cell Proliferation](#)

Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Rat, The detection limit for Caspase 3 is approximately 0.25 ng/lane under reducing conditions.
IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Mouse, Rat, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.
Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P).

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Publications

Product cited in: An, Liu, She, Wu, Tian, Shi, Hao, Ren, Yang, Lu, Yang, Wu: "Replication of hepatitis E virus in the

ovary and promotion of oocyte apoptosis in rabbits infected with HEV-4." in: **Oncotarget**, Vol. 9, Issue 4, pp. 4475-4484, (2018) ([PubMed](#)).

Shi, Wang, Zhao, Long, Deng, Wang: "Bone marrow mesenchymal stem cell-derived exosomal miR-21 protects C-kit+ cardiac stem cells from oxidative injury through the PTEN/PI3K/Akt axis." in: **PLoS ONE**, Vol. 13, Issue 2, pp. e0191616, (2018) ([PubMed](#)).

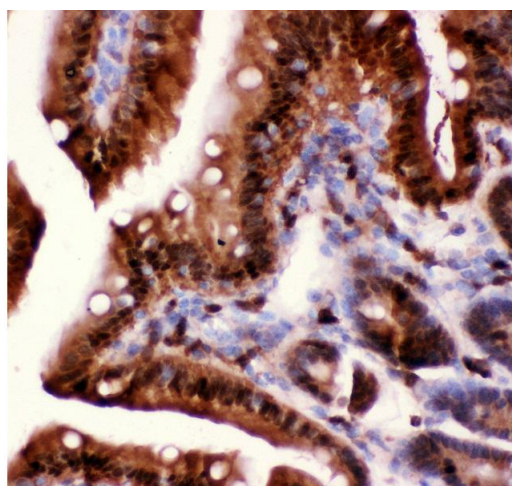
Bai, Yang, Luo: "Effects of 5-hydroxy-4'-nitro-7-propionyloxy-genistein on inhibiting proliferation and invasion via activating reactive oxygen species in human ovarian cancer A2780/DDP cells." in: **Oncology letters**, Vol. 15, Issue 4, pp. 5227-5235, (2018) ([PubMed](#)).

Yang, Shi, Soomro, Hu, Du, She: "Hepatitis E Virus Induces Hepatocyte Apoptosis via Mitochondrial Pathway in Mongolian Gerbils." in: **Frontiers in microbiology**, Vol. 9, pp. 460, (2018) ([PubMed](#)).

Wang, Li, Yang, Gao, Lin, Wang, Zhou, Hu: "Ginsenoside Rb1 inhibit apoptosis in rat model of Alzheimer's disease induced by A β 1-40." in: **American journal of translational research**, Vol. 10, Issue 3, pp. 796-805, (2018) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

Images



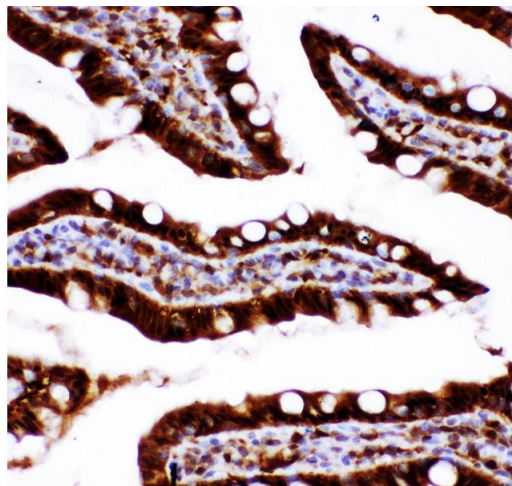
Immunohistochemistry

Image 1. Anti-Caspase3 antibody, IHC(P) IHC(P): Mouse Intestine Tissue



Western Blotting

Image 2. Anti- Caspase3 antibody, Western blotting All lanes: Anti Caspase3 at 0.5ug/ml WB: Recombinant Human Caspase3 Protein 0.5ng Predicted bind size: 39KD Observed bind size: 39KD



Immunohistochemistry

Image 3. Anti-Caspase3 antibody, IHC(P) IHC(P): Rat Intestine Tissue

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN3043802.