

# Product Datasheet

## Caspase-3 Antibody (CPP32 4-1-18) - BSA Free NB500-210

Unit Size: 0.2 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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**NB500-210**

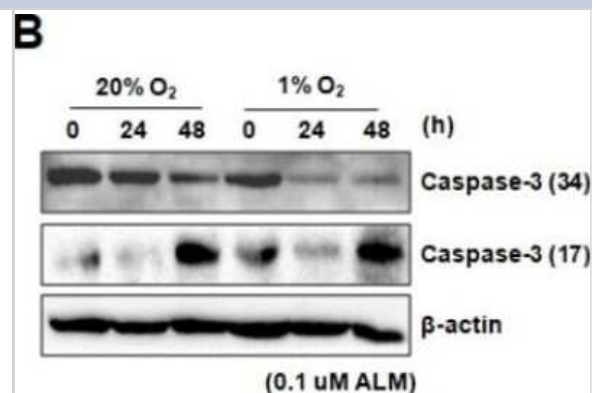
Caspase-3 Antibody (CPP32 4-1-18) - BSA Free

Product Information	
Unit Size	0.2 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	CPP32 4-1-18
Preservative	0.02% Sodium Azide
Isotype	IgG2a Kappa
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	31.7 kDa
Product Description	
Host	Mouse
Gene ID	836
Gene Symbol	CASP3
Species	Human, Mouse, Rat
Immunogen	This Caspase-3 Antibody (CPP32 4-1-18) was developed against full-length recombinant human Caspase 3 [UniProt# P42574].
Product Application Details	
Applications	Western Blot, Simple Western, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:500-1:1000, Simple Western 1:2000, Immunohistochemistry 1:200-1:500, Immunocytochemistry/ Immunofluorescence 2 ug/ml, Immunoprecipitation 2 ug / mg lysate, Immunohistochemistry-Paraffin 1:10-1:500, Immunohistochemistry-Frozen reported in scientific literature (PMID 31242448)
Application Notes	<p>A band is seen at ~32 kDa for the inactive form of Caspase 3 and ~17-22 kDa for the active form of Caspase 3 in Western Blot. (See protocol for additional information).</p> <p>In Simple Western only 10 - 15 uL of the recommended dilution is used per data point.</p> <p>See <a href="#">Simple Western Antibody Database</a> for Simple Western validation: Tested in Hek293 lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:2000, apparent MW was 40 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.</p>

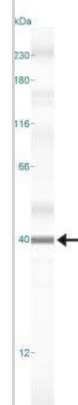


## Images

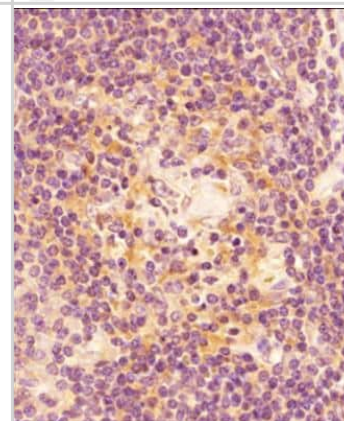
Western Blot: Caspase-3 Antibody (CPP32 4-1-18) [NB500-210] - ALM induces HIF-1 $\alpha$ -dependent apoptosis in PC3 cells. PC3 cells were treated with ALM for 24 h and 48 h at 0.1  $\mu$ M under normoxia and hypoxia, followed by Western blot for caspase-3. Image collected and cropped by CiteAb from the following publication (<https://www.mdpi.com/2073-4409/8/5/439>), licensed under a CC-BY license.



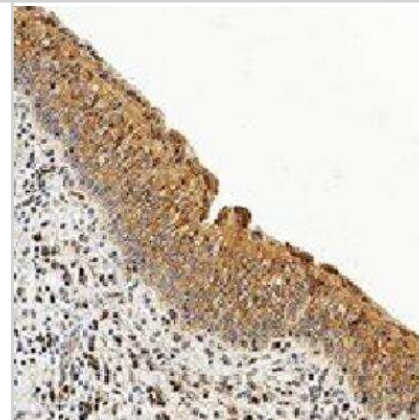
Simple Western: Caspase-3 Antibody (CPP32 4-1-18) [NB500-210] - Lane view shows a specific band for Caspase 3 in 0.5 mg/ml of Hek293 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



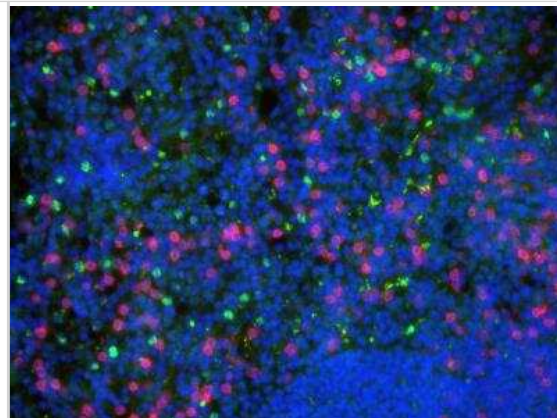
Immunohistochemistry-Paraffin: Caspase-3 Antibody (CPP32 4-1-18) [NB500-210] - Analysis of a FFPE human spleen section using 1:200 dilution of . The staining was developed using HRP conjugated anti-mouse secondary antibody and DAB reagent. This Caspase 3 antibody generated a specific staining in the cytoplasm of various splenocytes.



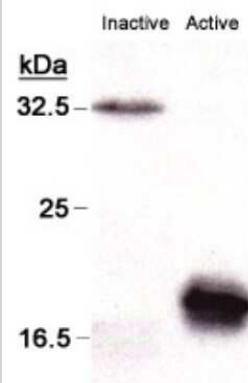
Immunohistochemistry-Paraffin: Caspase-3 Antibody (CPP32 4-1-18) [NB500-210] - Caspase-3 was detected in immersion fixed paraffin-embedded sections of human bladder 1:300 dilution of mouse monoclonal Caspase-3 Antibody (CPP32 4-1-18) (NB500-210, Novus Biologicals), for 1 hour at room temperature followed by anti-mouse IgG VisUCyte HRP polymer(VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue).



Immunohistochemistry-Frozen: Caspase-3 Antibody (CPP32 4-1-18) - BSA Free [NB500-210] - Analysis of murine spleen with Caspase-3 (green), CD3 (red) and DAPI (blue). Image from verified customer review.



Western Blot: Caspase-3 Antibody (CPP32 4-1-18) [NB500-210] - Detection of Caspase (19 and 35 kDa) from HEK293 cell extract using (NB500-210). Lanes 1 and 2 contain inactive and active Caspase, respectively.



Immunohistochemistry-Paraffin: Caspase-3 Antibody (CPP32 4-1-18) [NB500-210] - Rat epithelial cells of the tongue base. Antigen retrieval method: Citrate buffer.



## Publications

Liu Z, Wang M, Huang R et al. Novel Indole-Chalcone Derivative-Ligated Platinum(IV) Prodrugs Attenuate Cisplatin Resistance in Lung Cancer through ROS/ER Stress and Mitochondrial Dysfunction Journal of medicinal chemistry 2023-03-22 [PMID: 36946996]

Basavaraj P, Hsieh PF, Jiang WP et al. Elucidation of scandenolone as anti-cancer activity through impairment of the metabolic and signaling vulnerabilities in prostate cancer Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie 2023-05-29 [PMID: 37257224] (WB, Human)

Hsieh P, Jiang W, Basavaraj P Et al. Cell suspension culture extract of Eriobotrya japonica attenuates growth and induces apoptosis in prostate cancer cells via targeting SREBP-1/FASN-driven metabolism and AR Phytomedicine 2021-12-01 [PMID: 34740154] (WB, Human)

Su C Sann-Joong-Kuey-Jian-Tang decreases the protein expression of mammalian target of rapamycin but increases microtubule associated protein II light chain 3 expression to inhibit human BxPC 3 pancreatic carcinoma cells. Mol Med Rep 2015-01-04 [PMID: 25516264] (WB, Human)

Cheng Jiadong, Hu Lan, Yang Zheng et al. 2-Oxonanonoidal Antibiotic Actinolactomycin Inhibits Cancer Progression by Suppressing HIF-1 alpha. Cells 2019-05-10 [PMID: 31083403] (WB, Human)

Rutledge EA, Parvez RK, Short KM et al. Morphogenesis of the kidney and lung requires branch-tip directed activity of the Adamts18 metalloprotease Dev. Biol. 2019-06-23 [PMID: 31242448] (IHC-F, Mouse)

Martins FF, Aguila MB, Mandarim-de-Lacerda CA. Impaired steroidogenesis in the testis of leptin-deficient mice (ob/ob -/-). Acta Histochem. 2017-05-13 [PMID: 28506466]

Graus-Nunes F, Marinho TS, Barbosa-da-Silva S et al. Differential effects of angiotensin receptor blockers on pancreatic islet remodelling and glucose homeostasis in diet-induced obese mice. Mol. Cell. Endocrinol. 2016-10-22 [PMID: 27780713] (IF/IHC, Mouse)

Kim H, Lee KH, Park IA et al. Expression of SIRT1 and apoptosis-related proteins is predictive for lymph node metastasis and disease-free survival in luminal A breast cancer. Virchows Arch. 2015-08-18 [PMID: 26280894] (IHC-P, Human)

### Details:

Caspase 3 antibody was used at 1:300 dilution for IHC-P analysis of tissue sections from human cases of luminal A invasive breast ductal carcinoma. The assay was performed on benchmark automatic immunostaining device and the signal detection was performed using biotinylated anti-mouse secondary antibody -peroxidase-labeled streptavidin - DAB method.

Shibayama Y, Kondo T, Ohya H et al. Upregulation of microRNA-126-5p is associated with drug resistance to cytarabine and poor prognosis in AML patients. Oncol Rep 2015-05-01 [PMID: 25759982]

Chen YL, Yan MY, Chien SY et al. Sann-Joong-Kuey-Jian-Tang inhibits hepatocellular carcinoma Hep-G2 cell proliferation by increasing TNF-alpha, Caspase-8, Caspase- 3 and Bax but by decreasing TCTP and Mcl-1 expression in vitro. Mol Med Rep 2013-05-01 [PMID: 23525225] (Human)

Wu SH, Chyau CC, Chen JH et al. Anti-cancerous effects of Wasabia japonica extract in Hep3B liver cancer cells via ROS accumulation, DNA damage and p73-mediated apoptosis Journal of Functional Foods 2015-03-02 (WB, Human)

More publications at <http://www.novusbio.com/NB500-210>



## Procedures

### Western Blot Protocol for Caspase 3 Antibody (NB500-210)

Procedure Guide for NB 500-210 Monoclonal anti-Caspase 3

#### Western Protocol

- 1) Run a 10-15% SDS polyacrylamide gel, loading ~20 ug of cell extract per lane.
- 2) Transfer the proteins to a membrane.
- 3) Block the membrane in PT-T20 [20 mM Tris-HCl, pH 7.4 / 150 mM NaCl/0.5% Tween 20] + 5% NFDM [non-fat dry milk], for 3 hour at room temperature (RT), shaking gently.
- 4) Rinse the membrane twice with PT-T20.
- 5) Incubate the membrane in anti-Caspase 3 [NB 500-210], diluted 1:500-1:1,000 in PT-T20 + 5% NFDM, for 60 minutes at RT.
- 6) Wash the membrane for 15 minutes, 3 times, in PT-T20 at RT.
- 7) Incubate the membrane in anti-mouse conjugated to HRP (secondary antibody), diluted in PT-T20 + 5% NFDM for 60 minutes at RT.
- 8) Wash the membrane for 15 minutes, 3 times, in PT-T20 at RT.
- 9) Develop membrane in chemiluminescent reagents, as instructed by kit-vendor.

\*Positive control(s): Human kidney 293 cells

To Activate the Cell Extracts:

Bring the extract to a final concentration of 5 mM dATP.

Incubate the extracts at 37C for 15-30 minutes.







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### **Products Related to NB500-210**

NB800-PC6	293 Whole Cell Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-96981-0.5mg	Mouse IgG2a Kappa Isotype Control (M2AK)

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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