

# Product Datasheet

## Caspase-3 Antibody (31A1067) - (Pro and Active) NB100-56708

Unit Size: 0.1 mg

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

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Updated 3/4/2018 v.20.1

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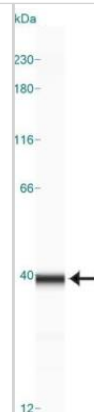
**NB100-56708**

Caspase-3 Antibody (31A1067) - (Pro and Active)

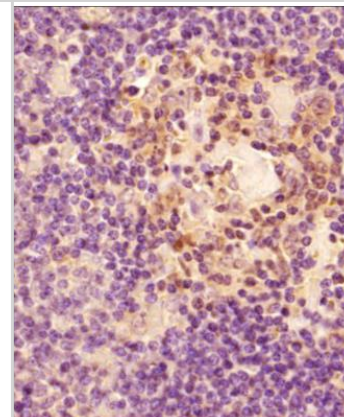
| <b>Product Information</b>         |   |
|------------------------------------|---|
| <b>Unit Size</b>                   | 0.1 mg  |
| <b>Concentration</b>               | 1 mg/ml   |
| <b>Storage</b>                     | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.  |
| <b>Clonality</b>                   | Monoclonal  |
| <b>Clone</b>                       | 31A1067   |
| <b>Preservative</b>                | 0.05% Sodium Azide  |
| <b>Isotype</b>                     | IgG1 Kappa  |
| <b>Purity</b>                      | Protein G purified  |
| <b>Buffer</b>                      | PBS   |
| <b>Product Description</b>         |   |
| <b>Host</b>                        | Mouse   |
| <b>Gene ID</b>                     | 836   |
| <b>Gene Symbol</b>                 | CASP3   |
| <b>Species</b>                     | Human, Mouse, Rat, Porcine, Chinese Hamster, Mammal   |
| <b>Specificity/Sensitivity</b>     | The antibody detects both pro Caspase-3 (~32 kDa) and the large subunit of the active/cleaved form (~14-21 kDa) of Caspase-3. The large subunit of the cleaved form may appear as one or two or even as a stack of bands depending on the presence or absence of the Caspase-3 pro-domain. It is highly recommended that a maximum sensitivity ECL substrate (Femto sensitive) be used for efficient detection of this antibody in Western blot applications.   |
| <b>Immunogen</b>                   | Full-length recombinant human caspase-3 protein was used as immunogen. The antibody recognizes an epitope in the large domain subunit of Caspase-3. As such it will recognize pro Caspase-3 and the large subunit cleavage fragment.  |
| <b>Product Application Details</b> |   |
| <b>Applications</b>                | Western Blot, Simple Western, Electron Microscopy, Flow Cytometry, Immunoblotting, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, CyTOF-ready, Knockout Validated  |
| <b>Recommended Dilutions</b>       | Western Blot 1 - 5 ug/ml, Simple Western 1:50, Flow Cytometry, Immunohistochemistry 1:10 - 1:500, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin 1:10 - 1:500, Immunohistochemistry-Frozen 1:10 - 1:500, Immunoblotting, Electron Microscopy, CyTOF-ready, Knockout Validated  |
| <b>Application Notes</b>           | Useful in Immunohistochemistry-Frozen See Zhang et al., and Immunohistochemistry-Paraffin See Lee et al. Use in Immunocytochemistry/Immunofluorescence was reported in the scientific literature (PMID: 23840553). Use in FLOW cytometry reported in scientific literature (PMID 27429862). Use in electron microscopy reported in scientific literature (PMID 27450722). Use in Immunoblotting reported in scientific literature (PMID 28500555).<br><br>In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue. |



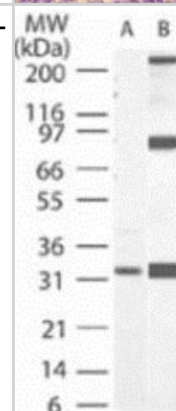
Simple Western: Caspase-3 Antibody (31A1067) - (Pro and Active) [NB100-56708] - Simple Western lane view shows a specific band for Caspase 3 in 0.1 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230kDa separation system.



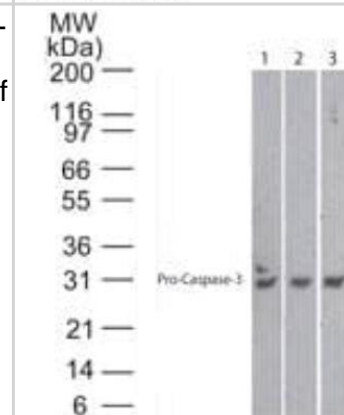
Immunohistochemistry-Paraffin: Caspase-3 Antibody (31A1067) - (Pro and Active) [NB100-56708] - IHC analysis of a formalin fixed paraffin embedded tissue section of human spleen using 1:200 dilution of Caspase-3 antibody (clone 31A1067). The staining was developed with HRP labeled anti-mouse IgG secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin. This Caspase 3 antibody generated primarily a specific cytoplasmic staining in a subset of splenocytes with some nuclear signal in a few cells.



Western Blot: Caspase-3 Antibody (31A1067) - (Pro and Active) [NB100-56708] - Analysis using Azide/BSA FREE version of NB100-56708. Analysis of Caspase-3 in A) RAW and B) NIH 3T3 using 32 ug/ml.

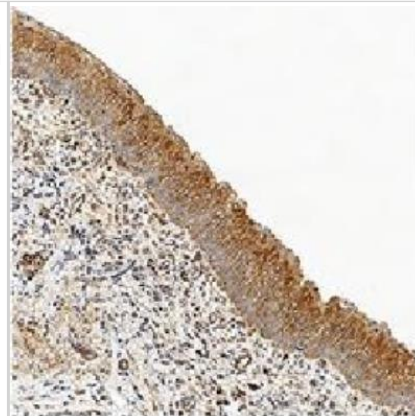


Western Blot: Caspase-3 Antibody (31A1067) - (Pro and Active) [NB100-56708] - Analysis using the Azide Free version of NB100-56708. Detection of Lanes 1, 2 and 3 demonstrate the species cross-reactivity of the antibody in human, mouse and rat heart lysate, respectively.

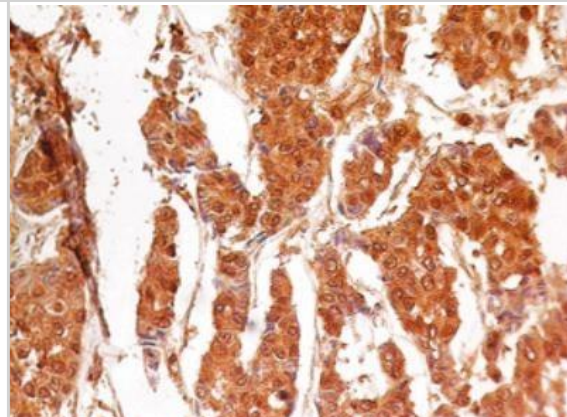




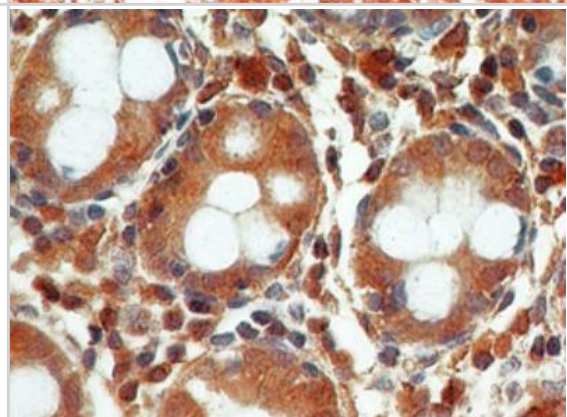
Immunohistochemistry-Paraffin: Caspase-3 Antibody (31A1067) - (Pro and Active) [NB100-56708] - Caspase-3 was detected in immersion fixed paraffin-embedded sections of human bladder tissue using 1:50 dilution of mouse anti-Caspase-3 monoclonal (NB100-56708, Novus Biologicals), for 1 hour at room temperature followed by anti-mouse IgG VisUCyte HRP polymer(VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue).



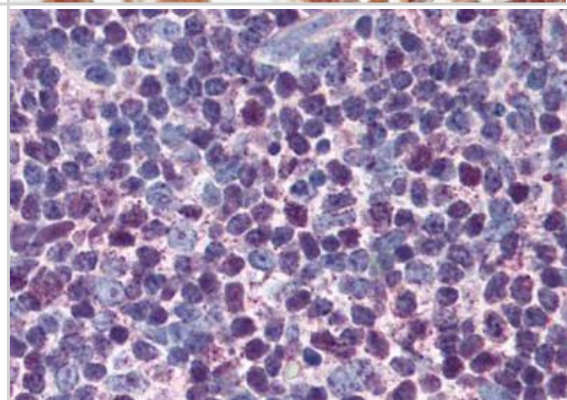
Immunohistochemistry-Paraffin: Caspase-3 Antibody (31A1067) - (Pro and Active) [NB100-56708] - Analysis using the Azide Free version of NB100-56708. Staining of human breast cancer stained at 4ug/ml. Localization can be cytoplasmic and nuclear. Staining in the nucleus is considered to be an indication of active Caspase-3. In most cell types and model systems, cells with active Caspase-3 are undergoing apoptosis.



Immunohistochemistry-Paraffin: Caspase-3 Antibody (31A1067) - (Pro and Active) [NB100-56708] - Analysis using the azide free version of NB100-56708. Staining of normal colon stained 4ug/ml. Localization can be cytoplasmic and nuclear. Staining in the nucleus is considered to be an indication of active Caspase-3. In most cell types and model systems



Immunohistochemistry-Paraffin: Caspase-3 Antibody (31A1067) - (Pro and Active) [NB100-56708] - Analysis using the Azide Free version of NB100-56708. Staining of the human thymus after heat-induced antigen retrieval at 5 ug/ml.



## Publications

Qiu S, Wu X, Liao H et al. Pteisolic acid G, a novel ent-kaurane diterpenoid, inhibits viability and induces apoptosis in human colorectal carcinoma cells *Oncology Letters* 2017 Sep 06 [PMID: 29113182] (Human)

Schecher S, Walter B, Falkenstein M et al. Cyclin K dependent regulation of Aurora B affects apoptosis and proliferation by induction of mitotic catastrophe in prostate cancer *Int. J. Cancer* 2017 Jul 03 [PMID: 28670704] (Human)

Patel N, Garikapati KR, Pandita RK et al. miR-15a/miR-16 down-regulates BMI1, impacting Ub-H2A mediated DNA repair and breast cancer cell sensitivity to doxorubicin *Sci Rep* 2017 Jun 27 [PMID: 28655885] (WB, Human)

Wang YY, Chen YK, Hu SC et al. CYT-Rx20 inhibits ovarian cancer cells in vitro and in vivo through oxidative stress-induced DNA damage and cell apoptosis. *Cancer Chemother. Pharmacol.* Jun 1 2017 12:00AM [PMID: 28500555] (IB, IHC)

Chao MW, Huang HL, HuangFu WC et al. An oral quinoline derivative, MPT0B392, causes leukemic cells mitotic arrest and overcomes drug resistant cancer cells. *Oncotarget* Apr 25 2017 12:00AM [PMID: 28186963] (WB, HEStain, Human)

Kao CJ, Chen WF, Guo BL et al. The 1-Tosylpentan-3-one Protects against 6-Hydroxydopamine-Induced Neurotoxicity. *Int J Mol Sci* May 19 2017 12:00AM [PMID: 28534853] (WB, Human)

Chang WT, Liu W, Chiu YH et al. A 4-Phenoxyphenol Derivative Exerts Inhibitory Effects on Human Hepatocellular Carcinoma Cells through Regulating Autophagy and Apoptosis Accompanied by Downregulating  $\alpha$ -Tubulin Expression. *Molecules* May 21 2017 12:00AM [PMID: 28531143] (WB, Human)

Chao MW, Chen TH, Huang HL et al. Lanatoside C, a cardiac glycoside, acts through protein kinase C $\delta$  to cause apoptosis of human hepatocellular carcinoma cells. *Sci Rep.* Apr 7 2017 12:00AM [PMID: 28387249] (WB, Human)

Kwon JJ, Willy JA, Quirin KA et al. Novel role of miR-29a in pancreatic cancer autophagy and its therapeutic potential. *Oncotarget.* Nov 1 2016 12:00AM [PMID: 27626694] (WB, Human)

Sakchaisri K, Kim SO, Hwang J et al. Anticancer activity of a novel small molecule tubulin inhibitor STK899704. *PLoS ONE.* 2017 Mar 15 [PMID: 28296906] (WB, Human)

Huang YC, Lee CT, Lee JC et al. Epigenetic silencing of miR-137 contributes to early colorectal carcinogenesis by impaired Aurora-A inhibition. *Oncotarget.* 2016 Nov 22 [PMID: 27764771] (WB, Human)

Ren H, Guo H, Thakur A et al. Blockade efficacy of MEK/ERK-dependent autophagy enhances PI3K/Akt inhibitor NVP-BKM120's therapeutic effectiveness in lung cancer cells. *Oncotarget.* 2016 Oct 11 [PMID: 27572309] (WB, Human)

More publications at <http://www.novusbio.com/NB100-56708>



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### Products Related to NB100-56708

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|                  |   |
|------------------|---|
| NBL1-08710       | Caspase-3 Overexpression Lysate (Native)                              |
| HAF007           | Goat anti-Mouse IgG Secondary Antibody [HRP (Horseradish Peroxidase)] |
| NB720-B          | Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]               |
| NBP1-43319-0.5mg | Mouse IgG1 Kappa Light Chain Isotype Control (P3.6.2.8.1)             |

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### 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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