Product Datasheet

Caspase-8 Antibody (90A992) - BSA Free
NB100-56527

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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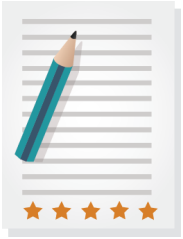
Updated 2/17/2025 v.20.1



NB100-56527

Caspase-8 Antibody (90A992) - BSA Free

Product Information

Unit Size	0.1 mg
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	90A992
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	PBS

Product Description

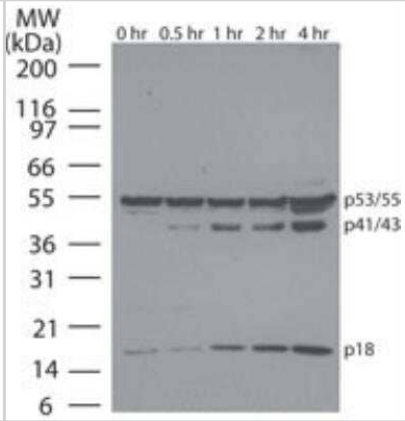
Host	Mouse
Gene ID	841
Gene Symbol	CASP8
Species	Human, Primate
Reactivity Notes	Chimpanzee and Rhesus Monkey reactivity noted.
Specificity/Sensitivity	This can be used for detection of the pro-form of Caspase-8.
Immunogen	The immunogen for this product falls between amino acids 360-385 of the human Caspase 8 protein.

Product Application Details

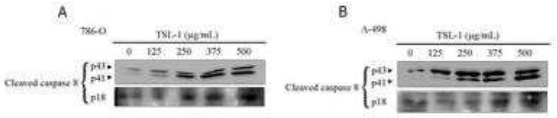
Applications	Western Blot, Simple Western, Flow Cytometry, Immunohistochemistry, Immunohistochemistry-Paraffin, CyTOF-ready
Recommended Dilutions	Western Blot 0.5-2 ug/ml, Simple Western 1:100, Flow Cytometry 0.1-0.5 ug/ml, Immunohistochemistry reported in scientific literature (PMID 31034097), Immunohistochemistry-Paraffin 4 ug/ml, CyTOF-ready
Application Notes	In Simple Western only 10 - 15 ul of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in Hek293 lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:100, apparent MW was 16 kDa.This antibody is CyTOF ready.

Images

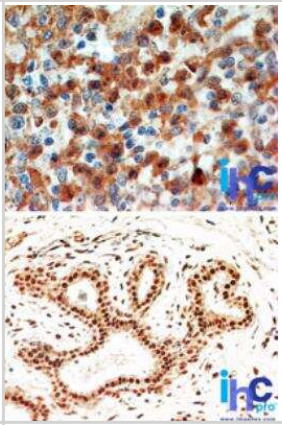
Western Blot: Caspase-8 Antibody (90A992) [NB100-56527] - Western blot analysis of Caspase-8 in Jurkat cells using Caspase-8 antibody at 1 ug/ml. Cells were treated with 2 uM staurosporine for different time periods. Caspase-8 activation is detected in western blots by the presence of Caspase-8 cleavage fragments. The antibody detected both pro (full length) and active (cleaved) Caspase-8, depending on the treatment time points. A basal level of endogenously cleaved Caspase-8 can be see in untreated Jurkat cells. Goat anti-mouse Ig HRP secondary antibody and PicoTect ECL substrate solution were used for this test.



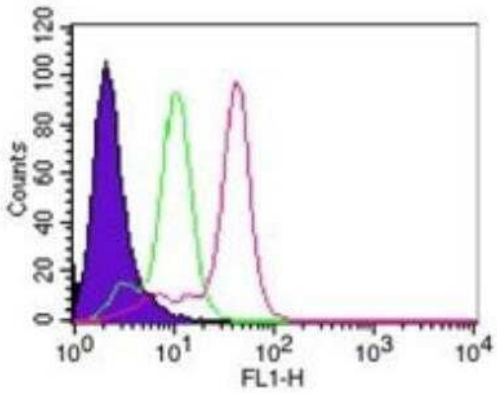
Western Blot: Caspase-8 Antibody (90A992) [NB100-56527] - Caspase-8 expression in 786-O and A-498 cellsClose



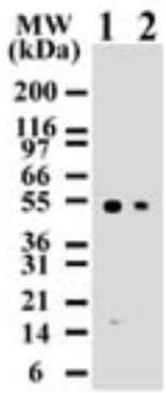
Immunohistochemistry-Paraffin: Caspase-8 Antibody (90A992) [NB100-56527] - Formalin-fixed, paraffin-embedded human spleen (top) and breast (bottom) stained with Caspase-8 antibody at 4 ug/ml. Localization can be cytoplasmic and nuclear. Cancer/normal adjacent tissue array was used for this test. Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM sodium citrate buffer, pH 6.0 for 10-20 min followed by cooling at RT for 20 min.



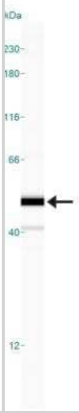
Flow Cytometry: Caspase-8 Antibody (90A992) [NB100-56527] - Flow cytometric analysis of Caspase-8 in HeLa cells using 0.1 ug of Caspase-8 antibody. Shaded histogram represents cells without antibody; green represents isotype control; red represents Caspase-8 antibody. Goat anti-mouse IgG-FITC secondary antibody was used for this test. IC-Flow (Intracellular Staining Flow Cytometry Kit) was used to fix and prepare the cells for staining.



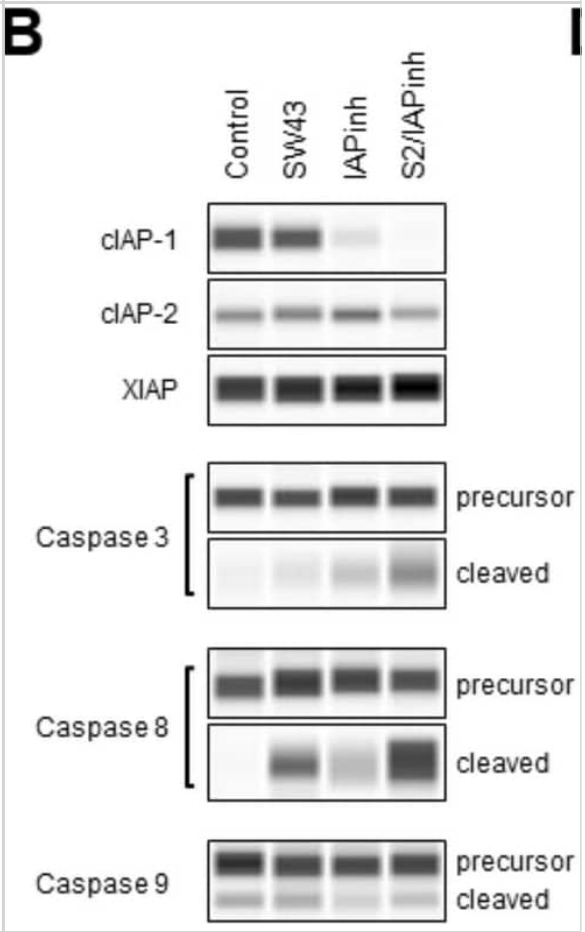
Western Blot: Caspase-8 Antibody (90A992) [NB100-56527] - Analysis using the Biotin conjugate of NB100-56527. Detection of human Caspase-8 using Jurkat lysates with NB100-55786 at 2 ug/ml (lane 1) and 0.5 ug/ml (lane 2) dilution. NB100-55786 only detects 55 kDa Caspase-8 in Jurkat cells.



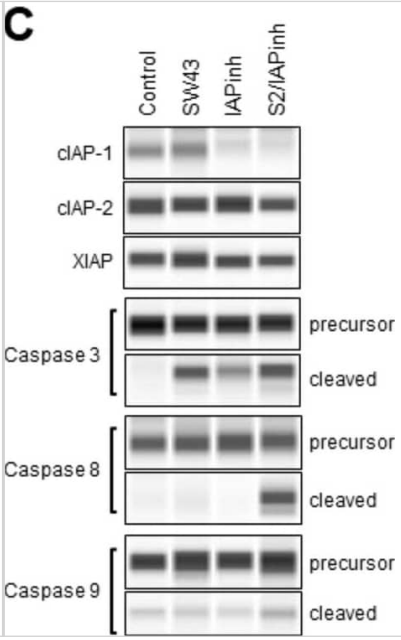
Simple Western: Caspase-8 Antibody (90A992) [NB100-56527] - Simple Western lane view shows a specific band for Caspase 8 in 0.5 mg/ml of Hek293 lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Simple Western: Mouse Monoclonal Caspase-8 Antibody (90A992) [NB100-56527] - S2/IAPinh induces activation of the extrinsic apoptosis pathway via degradation of cIAP-1. (A) Schematic diagram of the intrinsic and extrinsic apoptosis pathways: arrows represent stimulation. TNFR, tumor necrosis factor receptor; DR4-5, death receptor 4–5; cIAP-1/2, cellular inhibitor of apoptosis protein-1/2; RIPK1, Receptor-interacting serine/threonine-protein kinase 1. (B) Protein expression of cIAP-1, cIAP-2, and XIAP in HPAC cells treated with vehicle, SW43 (10 μM), IAPinh (10 μM), or S2/IAPinh (10 μM) for 6 h. The precursor and cleaved forms of caspases 3, 8, and 9 were also analyzed for these cells using Wes automated capillary blotting system (Protein Simple). (C) Quantification of protein expression. Relative densitometry of each band normalized to the total protein. Data shown as means ± SEM. **P < 0.01, **** P < 0.0001. (D) Ratio of Caspase 3/7 counts to NucRed counts in HPAC cells treated with vehicle, SW43 (10 μM), IAPinh (10 μM), combination of SW43 (10 μM) and IAPinh (10 μM), or S2/IAPinh (10 μM) measured by the IncuCyte system (Sartorius). Bar graph shows the ratio of Caspase 3/7 at 48 h for each treatment. Data shown as means ± SEM. ****P < 0.001. (E) Activity of cell death in AsPC-1 cells was measured using YOYO-1 iodide on the IncuCyte (Sartorius). Representative images of AsPC-1 cells treated with or without Z-VAD-FMK and S2/IAPinh (10 uM) at baseline and 36 h after treatment. Scale bars are equal to 20 μm. (F) The AUC of lethal fraction at 36 h. Data shown as means ± SEM. ****P < 0.0001. Image collected and cropped by CiteAb under a CC-BY license from the following publication: The novel drug candidate S2/IAPinh improves survival in models of pancreatic and ovarian cancer. *Sci Rep* (2024). Not internally tested by Novus Biologicals.



Simple Western: Mouse Monoclonal Caspase-8 Antibody (90A992) [NB100-56527] - S2/IAPinh induces tumor cell death via activation of the extrinsic apoptosis pathway in vivo. KP2 tumor samples collected from animals at 48 h after the treatment with either vehicle, SW43, IAPinh, or S2/IAPinh, were used for analyses. (A) Representative images of TUNEL labeled apoptosis cells in KP2 tumor samples of each group. Nuclei were stained in blue with Hoechst, TUNEL positive cells are in red. Scale bars are equal to 20 μm. (B) Quantification of TUNEL positive cells per area in each group. Data are shown as means ± SEM; ****P < 0.0001. (C) Protein expression of cIAP-1, cIAP-2, and XIAP in KP2 tumor samples of each group. The precursor and cleaved forms of caspases 3, 8, and 9 were also analyzed for these cells using Wes automated capillary blotting system (Protein Simple). (D) Quantification of protein expression. Relative densitometry of each band normalized to the total protein. Data shown as means ± SEM. *P < 0.05, **P < 0.01, **** P < 0.0001. Image collected and cropped by CiteAb under a CC-BY license from the following publication: The novel drug candidate S2/IAPinh improves survival in models of pancreatic and ovarian cancer. *Sci Rep* (2024). Not internally tested by Novus Biologicals.



Publications

Takaomi Hagi, Suwanna Vangveravong, Rony Takchi, Qingqing Gong, S. Peter Goedegebuure, Herve Tiriac, Brian A. Van Tine, Matthew A. Powell, William G. Hawkins, Dirk Spitzer The novel drug candidate S2/IAPinh improves survival in models of pancreatic and ovarian cancer Scientific Reports 2024-03-16 [PMID: 38493257] (Simple Western)

Corry J, Kettenburg G, Upadhyay AA et al. Infiltration of inflammatory macrophages and neutrophils and widespread pyroptosis in lung drive influenza lethality in nonhuman primates PLoS pathogens 2022-03-01 [PMID: 35271686] (WB, Monkey)

Details:
Macaca fascicularis

MUller, I, Strozyk, E Et al. Cancer Cells Employ Nuclear Caspase-8 to Overcome the p53-Dependent G2/M Checkpoint through Cleavage of USP28. Mol Cell 2020-03-05 [PMID: 31982308] (IF/IHC, Drosophila melanogaster)

Toy R, Pradhan P, Ramesh V et al. Mutational landscape of penile squamous cell carcinoma in a Chinese population Int. J. Cancer 2019-04-29 [PMID: 31034097] (IF/IHC)

Greenberg DE, Sturdevant DE, Marshall-Batty KR et al. Simultaneous Host-Pathogen transcriptome analysis during Granulibacter bethesdensis infection of normal and chronic granulomatous disease neutrophils. Infect. Immun. 2015-08-17 [PMID: 26283340] (WB, 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)

Hsuan SW, Chyau CC, Hung HY et al. The induction of apoptosis and autophagy by Wasabia japonica extract in colon cancer Eur J Nutr 2015-02-27 [PMID: 25720497] (WB, Human)

Cheng Tc, Lai Cs, Chung Mc et al. Potent anti-cancer effect of 3'-hydroxypterostilbene in human colon xenograft tumors PLoS OnE et al. 2014-11-13 [PMID: 25389774] (WB, Human)

Details:
Caspase-9 antibody used in WB for the detection of pro and cleaved forms of Caspase 9 protein in lysates of COLO205 cancer cells treated or not with Pterostilbene and 3'-hydroxypterostilbene (Figure 2C)

Berges C, Haberstock H, Fuchs D et al. Proteasome inhibition activates the mitochondrial pathway of apoptosis in human CD4+ T cells. J Cell Biochem. 2009-11-01 [PMID: 19735079] (WB)

Details:
Caspase-8 Pro and Active (IMG-274A). 1.WB: Purified CD4+ T cells treated with DMSO or bortezomib (Bor), Fig 1C. 2. WB: CD4+ T cells pretreated with ZVAD followed by Bor or DMSO incubation, Fig 3.

Schultz CR, Golembieski WA, King DA et al. Inhibition of HSP27 alone or in combination with pAKT inhibition as therapeutic approaches to target SPARC-induced glioma cell survival. Mol Cancer. 2012-04-05 [PMID: 22480225]

Berges C, Fuchs D, Opelz G et al. Helenalin suppresses essential immune functions of activated CD4+ T cells by multiple mechanisms. Mol Immunol. 2009-09-01 [PMID: 19656571] (WB)

Details:
Caspase-8 Pro and Active (IMG-274A). WB: Activated CD4+ T cells were treated with helenalin or DMSO, Fig 2. Note: Caspase 8 was seen at 55 kDa and a doublet at 43 kDa, Fig 2A.

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Products Related to NB100-56527

NB800-PC2	Jurkat Whole Cell Lysate
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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