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orders@antibodiesinc.com
530-758-4400

PRODUCT DATASHEET

Anti-Caspase-3 (p17 subunit) Antibody

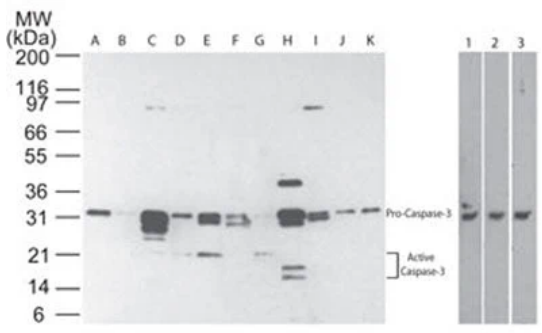
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Product Details

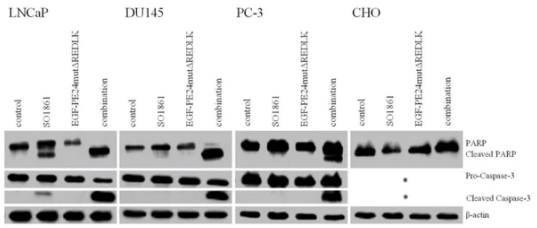
Available Variants	100 µL (SKU:CM4911)
Conjugate	Unconjugated
Isotype	IgG1
Clone	31A1067
Gene Name	CASP3
Host Species	Mouse
Format	Protein G Purified
Physical State	Liquid
Buffer	PBS + 1 mg/ml BSA, 0.05% NaN3 and 50% glycerol
Applications	ELISA, IHC, WB
Dilution Ranges	WB: 1:250
Species Reactivity	Human, Mouse, Rat
Immunogen	Clone 31A1067 was developed against full-length recombinant human Caspase-3. The antibody recognizes an epitope in the large domain subunit (p17) of Caspase-3, and it will recognize pro Caspase-3 and the p17 cleavage fragment.
Specificity	The antibody detects pro Caspase-3 at 32 kDa* and the large subunit of the cleaved form of Caspase-3 at 14-21 kDa. The antibody can be used for western blot, immunohistochemistry and immuno-electron microscopy.
Molecular Weight	32
Quality Control	Western blots performed on each lot.

Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
UniProt ID	P42574 UniProt Summary: Thiol protease that acts as a major effector caspase involved in the execution phase of apoptosis. Following cleavage and activation by initiator caspases (CASP8, CASP9 and/or CASP10), mediates execution of apoptosis by catalyzing cleavage of many proteins. At the onset of apoptosis, it proteolytically cleaves poly(ADP-ribose) polymerase PARP1 at a '216-Asp-|-Gly-217' bond. Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Cleaves and activates caspase-6, -7 and -9 (CASP6, CASP7 and CASP9, respectively). Cleaves and inactivates interleukin-18 (IL18). Involved in the cleavage of huntingtin. Triggers cell adhesion in sympathetic neurons through RET cleavage. Cleaves DSG2 in response to apoptosis resulting in a loss of full length DSG2 at desmosome cell junctions and subsequent loss of cell-cell adhesion. Also cleaves JUP in response to apoptosis. Cleaves and inhibits serine/threonine-protein kinase AKT1 in response to oxidative stress. Acts as an inhibitor of type I interferon production during virus-induced apoptosis by mediating cleavage of antiviral proteins CGAS, IRF3 and MAVS, thereby preventing cytokine overproduction. Also involved in pyroptosis by mediating cleavage and activation of gasdermin-E (GSDME). Cleaves XRCC4 and phospholipid scramblase proteins XKR4, XKR8 and XKR9, leading to promote phosphatidylserine exposure on apoptotic cell surface. Cleaves BIRC6 following inhibition of BIRC6-caspase binding by DIABLO/SMAC.
Country of Origin	United States
Shipping	Blue Ice
Expiration	After date of receipt, stable for at least 1 year at -20°C.
Usage Statement	For research use only. Not intended for therapeutic or diagnostic use. Use of all products is subject to our terms and conditions, which can be viewed on our website.
NCBI Gene ID	836

Product Images



Western blot analysis of Caspase-3 in multiple human tissues using CM4911 at 1:100. The tissues shown are A) brain, B) heart, C) intestine, D) kidney, E) liver, F) lung, G) muscle, H) stomach, I) spleen, J) ovary, and K) testis. Lanes 1, 2 and 3 demonstrate the species crossreactivity of the antibody in human, mouse and rat heart lysate, respectively.



Induction of apoptosis after combination treatment was marked by poly (ADP-ribose) polymerase (PARP) cleavage and caspase-3 (Cat. CM4911) activation. Western blots of single or combination treatment of LNCaP (48 h), DU145, PC-3 or CHO cells (all 72 h) with 1.0 µg/ml SO1861 and 2.5 nM EGF-PE24mutΔREDLK. β-actin was used as a loading control. *CHO cells are not of human origin - detection of human Caspase-3 was not possible in this cell line. Image from publication CC-BY-4.0. PMID: 37859824

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