

Product datasheet for **TA336455**

Caspase 3 (CASP3) Mouse Monoclonal Antibody [Clone ID: 31A1067]

Product data:

Product Type:	Primary Antibodies
Clone Name:	31A1067
Applications:	IHC, WB
Recommend Dilution:	WB: 1-5 ug/ml, IHC: 1:10-1:500, IHC-F: 1:10-1:500, IHC-P: 1:10-1:500
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1, kappa
Clonality:	Monoclonal
Immunogen:	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.
Formulation:	PBS containing 0.05% BSA, 0.05% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Concentration:	0.5 mg/ml
Purification:	Protein G purified
Gene Name:	caspase 3
Database Link:	NP_116786 Entrez Gene 12367 MouseEntrez Gene 25402 RatEntrez Gene 836 Human



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Background: Caspases are a family of cysteine proteases that are key mediators of programmed cell death or apoptosis. The precursor form of all caspases is composed of a prodomain, and large and small catalytic subunits. The active forms of caspases are generated by several stimuli including ligand-receptor interactions, growth factor deprivation and inhibitors of cellular functions. All known caspases require cleavage adjacent to aspartates to liberate one large and one small subunit, which associate into a 2b2 tetramer to form the active enzyme. Gene for Caspase-3 also known as Yama, CPP32, and apopain codes for a 32-kDa protein. Caspase-3 cleaves the death substrate poly(ADP-ribose) polymerase (PARP) to a specific 85 kDa form observed during apoptosis and is inhibitable by the CrmA protein. Other Caspase-3 substrates include DNA-PK, actin, GAS2, and procaspase-6, etc. Caspase-3 is activated by cleavage events at Asp-28/Ser-29 (between N-terminal pro-domain) and Asp-175/Ser-176 (between large and small subunits) to generate a large subunit of 17-kDa and a small subunit of 12-kDa.

Synonyms: CPP32; CPP32B; SCA-1

Note: 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).

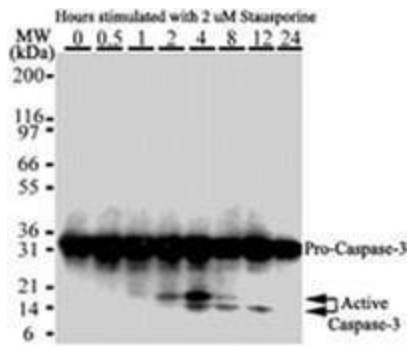
Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Protease

Protein Pathways: Alzheimer's disease, Amyotrophic lateral sclerosis (ALS), Apoptosis, Colorectal cancer, Epithelial cell signaling in Helicobacter pylori infection, Huntington's disease, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, p53 signaling pathway, Parkinson's disease, Pathways in cancer, Viral myocarditis

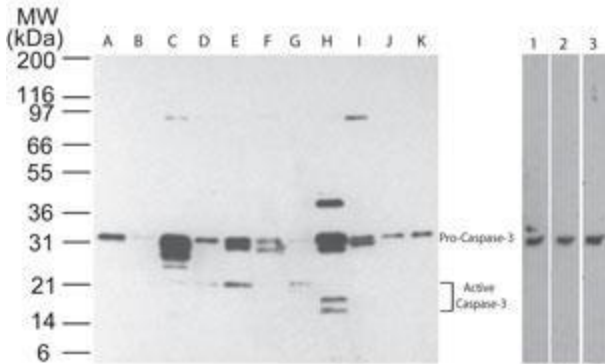
Product images:



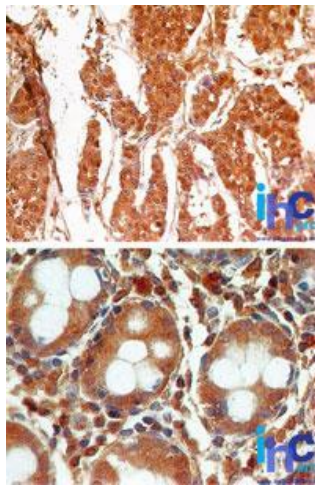
Western Blot: Caspase-3 (Pro and Active) Antibody (31A1067) TA336455 - Lanes 1, 2 and 3 demonstrate the species crossreactivity of the antibody in human, mouse and rat heart lysate, respectively.



Western Blot: Caspase-3 (Pro and Active) Antibody (31A1067) TA336455 - analysis of Caspase-3 in HeLa cells. Cells were treated with 2 uM staurosporine for different time periods. Caspase-3 activation is detected in Western blots by the presence of cleav



Western Blot: Caspase-3 (Pro and Active) Antibody (31A1067) TA336455 - analysis of multiple human tissues (NBP2-30113 Instablot) using Caspase-3 antibody at 5 ug/ml. The tissues shown are A) brain, B) heart, C) intestine, D) kidney, E) liver, F) lung, G



Immunohistochemistry-Paraffin: Caspase-3 (Pro and Active) Antibody (31A1067) TA336455 - Formalin-fixed, paraffin-embedded human breast cancer (top) and normal colon (bottom) stained with Caspase-3 antibody at 4 ug/ml. Localization can be cytoplasmic and