Synaptic Systems

Rudolf-Wissell-Str. 28
37079 Göttingen, Germany
Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

Caspase 3

Cat.No. 236 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	**WB**: not tested yet **IP**: not tested yet **ICC**: 1 : 500 up to 1 : 1000 **IHC**: not tested yet **IHC-P/FFPE**: not tested yet
Immunogen	Synthetic peptide corresponding to AA 170 to 175 from mouse Caspase3 (UniProt Id: P70677)
Reactivity	Reacts with: human (P42574), rat (P55213), mouse (P70677), cow. Other species not tested yet.
Specificity	Recognizes cleaved and activated caspase 3.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Cell proliferation, differentiation and apoptosis are central features of tissue homeostasis. Inhibition of apoptosis might be involved in the pathogenesis of cancer by extending cell life and growth. The activation of caspases, particularly **caspase 3**, appears to be a central part in most apoptotic pathways. The inactive caspase 3 protoenzyme is activated by proteolytic cleavage behind aspartic acid at position 175 leading to activated p17 and p12 fragments. In its active form caspase 3 cleaves many key proteins like the nuclear enzyme poly (ADPribose) polymerase (PARP).

Selected General References

The C-terminal products of cellular prion protein processing, C1 and C2, exert distinct influence on p53-dependent staurosporine-induced caspase-3 activation.
Sunyach C, Cisse MA, da Costa CA, Vincent B, Checler F
The Journal of biological chemistry (2007) 282(3): 1956-63.

Effect of protein kinase C alpha, caspase-3, and survivin on apoptosis of oral cancer cells induced by staurosporine.
Zhang YX, Yu SB, Ou-Yang JP, Xia D, Wang M, Li JR
Acta pharmacologica Sinica (2005) 26(11): 1365-72.

Caspase-8 activation and bid cleavage contribute to MCF7 cellular execution in a caspase-3-dependent manner during staurosporine-mediated apoptosis.
Tang D, Lahti JM, Kidd VJ
The Journal of biological chemistry (2000) 275(13): 9303-7.

Identification and inhibition of the ICE/CED-3 protease necessary for mammalian apoptosis.
Nicholson DW, Ali A, Thornberry NA, Vaillancourt JP, Ding CK, Gallant M, Gareau Y, Griffin PR, Labelle M, Lazebnik YA
Nature (1995) 376(6535): 37-43.

CPP32, a novel human apoptotic protein with homology to Caenorhabditis elegans cell death protein Ced-3 and mammalian interleukin-1 beta-converting enzyme.
Fernandes-Alnemri T, Litwack G, Alnemri ES
The Journal of biological chemistry (1994) 269(49): 30761-4.