

## Caspase-3 Polyclonal Antibody

<b>Catalog No :</b>	YT0656
<b>Reactivity :</b>	Human;Mouse;Rat;Fish
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	Caspase-3
<b>Fields :</b>	>>Platinum drug resistance;>>MAPK signaling pathway;>>p53 signaling pathway;>>Apoptosis;>>Apoptosis - multiple species;>>Natural killer cell mediated cytotoxicity;>>IL-17 signaling pathway;>>TNF signaling pathway;>>Serotonergic synapse;>>Non-alcoholic fatty liver disease;>>AGE-RAGE signaling pathway in diabetic complications;>>Alcoholic liver disease;>>Alzheimer disease;>>Parkinson disease;>>Amyotrophic lateral sclerosis;>>Huntington disease;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Epithelial cell signaling in Helicobacter pylori infection;>>Pathogenic Escherichia coli infection;>>Salmonella infection;>>Pertussis;>>Legionellosis;>>Toxoplasmosis;>>Amoebiasis;>>Tuberculosis;>>Hepatitis C;>>Hepatitis B;>>Measles;>>Human cytomegalovirus infection;>>Influenza A;>>Human papillomavirus infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Herpes simplex virus 1 infection;>>Epstein-Barr virus infection;>>Human immunodeficiency virus 1 infection;>>Pathways i
<b>Gene Name :</b>	CASP3
<b>Protein Name :</b>	Caspase3
<b>Human Gene Id :</b>	836
<b>Human Swiss Prot No :</b>	P42574
<b>Mouse Gene Id :</b>	12367
<b>Mouse Swiss Prot No :</b>	P70677
<b>Rat Gene Id :</b>	25402
<b>Rat Swiss Prot No :</b>	P55213

<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human Caspase 3. AA range:116-165
<b>Specificity :</b>	Caspase-3 Polyclonal Antibody detects endogenous levels of Caspase-3 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500 - 1:2000. IHC: 1:100-300 ELISA: 1:20000. IF 1:100-300 Not yet tested in other applications.
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Observed Band :</b>	35kD
<b>Cell Pathway :</b>	MAPK_ERK_Growth;MAPK_G_Protein;p53;Apoptosis_Inhibition;Apoptosis_Mitochondrial;Apoptosis_Overview;Natural killer cell mediated cytotoxicity;Alzheimer's disease;Parkinson's disease;Amyotrophic lateral
<b>Background :</b>	This gene encodes a protein which is a member of the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a central role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to produce two subunits, large and small, that dimerize to form the active enzyme. This protein cleaves and activates caspases 6, 7 and 9, and the protein itself is processed by caspases 8, 9 and 10. It is the predominant caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease. Alternative splicing of this gene results in two transcript variants that encode the same protein. [provided by RefSeq, Jul 2008],
<b>Function :</b>	catalytic activity:Strict requirement for an Asp residue at positions P1 and P4. It has a preferred cleavage sequence of Asp-Xaa-Xaa-Asp- - with a hydrophobic amino-acid residue at P2 and a hydrophilic amino-acid residue at P3, although Val or Ala are also accepted at this position.,enzyme regulation:Inhibited by isatin sulfonamides.,function:Involved in the activation cascade of caspases responsible for apoptosis execution. At the onset of apoptosis it proteolytically cleaves poly(ADP-ribose) polymerase (PARP) 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. Involved in the cleavage of huntingtin.,PTM: Cleavage by granzyme B, caspase-6, caspase-8 and caspase-10 generates the two active subunits. Ad

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**Subcellular  
Location :**

Cytoplasm.

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**Expression :**

Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.

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