

Product datasheet for **AP06504PU-N**

Caspase 3 (CASP3) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	Western blot: 1/500-1/1000. Immunofluorescence: 1/50-1/200. Immunohistochemistry on Paraffin Sections: 1/50-1/200.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 120-170 of Human Caspase 3.
Specificity:	This antibody detects endogenous levels of Caspase 3 protein. (region surrounding Asp146)
Formulation:	Phosphate buffered saline (PBS), pH 7.2, 50% Glycerol State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Preservative: 0.02% mM Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	~ 35.0 kDa
Gene Name:	caspase 3
Database Link:	Entrez Gene 836 Human P42574



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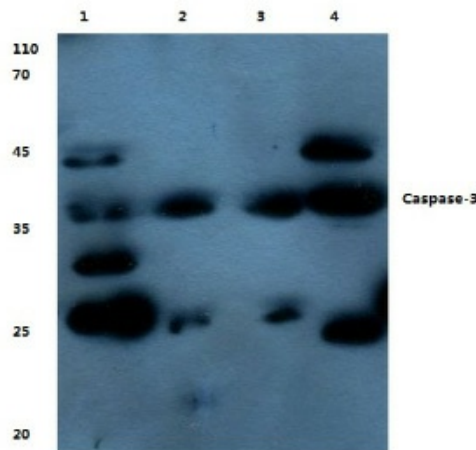
Background:

The caspase family of cysteine proteases play a key role in apoptosis. Caspase 3 (also known as CPP32, YAMA and apopain) is the most extensively studied apoptotic protein among caspase family members. Caspase 3 is synthesized as inactive pro enzyme that is processed in cells undergoing apoptosis by self proteolysis and/or cleavage by other upstream proteases (e.g. Caspases 8, 9 and 10).

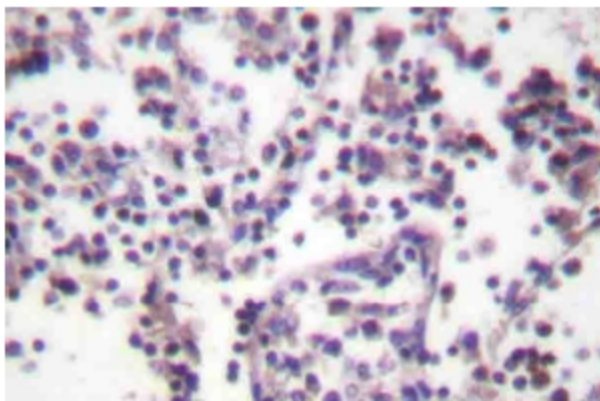
The processed form of Caspase 3 consists of large (17kD) and small (12kD) subunits which associate to form an active enzyme. Caspase 3 is cleaved at Asp28 - Ser29 and Asp175 - Ser176. The active Caspase 3 proteolytically cleaves and activates other caspases (e.g. Caspases 6, 7 and 9), as well as relevant targets in the cells (e.g. PARP and DFF). Alternative splicing of this gene results in two transcript variants which encode the same protein. In immunohistochemical studies Caspase 3 expression has been shown to be widespread but not present in all cell types (e.g. commonly reported in epithelial cells of skin, renal proximal tubules and collecting ducts). Differences in the level of Caspase 3 have been reported in cells of short lived nature (eg germinal centre B cells) and those that are long lived (eg mantle zone B cells). Caspase 3 is the predominant caspase involved in the cleavage of amyloid beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease.

Synonyms:

CASP-3, CASP3, CPP32, CPP-32, Yama protein, Apopain, SCA-1, SCA1

Product images:

Western Blot analysis using Caspase-3 antibody at 1/500 dilution: [Lane 1: Hela whole cell lysate.](#) [Lane 2: Sp2/0 whole cell lysate.](#) [Lane 3: Raw264.7 whole cell lysate.](#) [Lane 4: Rat Brain tissue lysate.](#)



Immunohistochemistry (IHC) analysis of Caspase-3 antibody in paraffin-embedded human lymph node tissue.