

Product name:	Caspase-10 Rabbit Polyclonal Antibody
Cat number:	ABN07963
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthesized peptide derived from the Internal region of human Caspase-10.
Reactivity:	Human,Rat,Mouse
Applications:	WB 1:500-1:2000,ELISA 1:20000-1:40000
Molecular Weight:	58kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

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 3 and 7, and the protein itself is processed by caspase 8. Mutations in this gene are associated with type IIA autoimmune lymphoproliferative syndrome, non-Hodgkin lymphoma and gastric cancer. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Apr 2011],catalytic activity:Strict requirement for Asp at position P1 and has a preferred cleavage sequence of Leu-Gln-Thr-Asp-[Gly],disease:Defects in CASP10 are a cause of familial non-Hodgkin lymphoma (NHL) [MIM:605027]. NHL is a cancer that starts in cells of the lymph system, which is part of the body's immune system. NHLs can occur at any age and are often marked by enlarged lymph nodes, fever and weight loss.,disease:Defects in CASP10 are a cause of gastric cancers [MIM:137215],disease:Defects in CASP10 are the cause of autoimmune lymphoproliferative syndrome type 2A (ALPS2A) [MIM:603909]. ALPS2 is characterized by abnormal lymphocyte and dendritic cell homeostasis and immune regulatory defects.,function:Involved in the activation cascade of caspases responsible for apoptosis execution. Recruited to both Fas- and TNFR-1 receptors in a FADD dependent manner. May participate in the granzyme B apoptotic pathways. Cleaves and activates caspase-3, -4, -6, -7, -8, and -9. Hydrolyzes the small- molecule substrates, Tyr-Val-Ala-Asp-[AMC and Asp-Glu-Val-Asp-[AMC.,function:Isoform C is proteolytically inactive.,online information:CASP10 mutation db,online information:Caspase-10 mutations causing ALPS type II,PTM:Cleavage by granzyme B and autocatalytic activity generate the two active subunits.,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the peptidase C14A family.,similarity:Contains 2 DED (death effector) domains.,subunit:Heterotetramer that consists of two anti-parallel arranged heterodimers, each one formed by a 23/17 kDa (p23/17) (depending on the splicing events) and a 12 kDa (p12) subunit (By similarity). Self-associates. Interacts with FADD and CASP8. Found in a Fas signaling complex consisting of FAS, FADD, CASP8 and CASP10.,tissue specificity:Detectable in most tissues. Lowest expression is seen in brain, kidney, prostate, testis and colon.,