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# Cleaved Caspase-8 (Asp384) Rabbit pAb

CatalogNo: YC0011 Orthogonal Validated 💽

# Key Features

Host Species <ul> <li>Rabbit</li> </ul>	Reactivity <ul> <li>Human,Mouse,Rat</li> </ul>	Applications • WB,IHC,IF,ELISA
MW • 47kD,55kD (Observed)	Isotype • IgG	

### **Recommended Dilution Ratios**

WB 1:500-2000 IF 1:50-300 IHC 1:50-300

### **Storage**

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### **Basic Information**

Clonality Polyclonal

## Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human Caspase 8. AA range:335-384
Specificity	Cleaved-Caspase-8 (D384) Polyclonal Antibody detects endogenous levels of fragment of activated Caspase-8 protein resulting from cleavage adjacent to D384.

Gene name CASP8 MCH5

Protein Name Caspase8

Organism	Gene ID	UniProt ID
Human	<u>841;</u>	<u>Q14790;</u>
Mouse	<u>12370;</u>	<u>089110;</u>

#### Cellular Cytoplasm . Nucleus . Localization

**Tissue specificity** Isoform 1, isoform 5 and isoform 7 are expressed in a wide variety of tissues. Highest expression in peripheral blood leukocytes, spleen, thymus and liver. Barely detectable in brain, testis and skeletal muscle.

**Function** Catalytic activity: Strict requirement for Asp at position P1 and has a preferred cleavage sequence of (Leu/Asp/Val)-Glu-Thr-Asp-I-(Gly/Ser/Ala)., Disease: Defects in CASP8 are the cause of caspase-8 deficiency (CASP8D) [MIM:607271]. CASP8D is a disorder resembling autoimmune lymphoproliferative syndrome (ALPS). It is characterized by lymphadenopathy, splenomegaly, and defective CD95-induced apoptosis of peripheral blood lymphocytes (PBLs). It leads to defects in activation of T-lymphocytes, B-lymphocytes, and natural killer cells leading to immunodeficiency characterized by recurrent sinopulmonary and herpes simplex virus infections and poor responses to immunization., Domain: Isoform 9 contains a N-terminal extension that is required for interaction with the BCAP31 complex.,Function:Most upstream protease of the activation cascade of caspases responsible for the TNFRSF6/FAS mediated and TNFRSF1A induced cell death. Binding to the adapter molecule FADD recruits it to either receptor. The resulting aggregate called deathinducing signaling complex (DISC) performs CASP8 proteolytic activation. The active dimeric enzyme is then liberated from the DISC and free to activate downstream apoptotic proteases. Proteolytic fragments of the N-terminal propeptide (termed CAP3, CAP5 and CAP6) are likely retained in the DISC. Cleaves and activates CASP3, CASP4, CASP6, CASP7, CASP9 and CASP10. May participate in the GZMB apoptotic pathways. Cleaves ADPRT. Hydrolyzes the small-molecule substrate, Ac-Asp-Glu-Val-Asp-|-AMC. Likely target for the cowpox virus CRMA death inhibitory protein. Isoforms 5, 6, 7 and 8 lack the catalytic site and may interfere with the pro-apoptotic activity of the complex.,online information:CASP8 mutation db,polymorphism:Genetic valations in CASP8 are associated with reduced risk of lung cancer [MIM:211980] in a population of Han Chinese subjects. Genetic valations are also associated with decreased risk of cancer of various other forms including esophageal, gastric, colorectal, cervical, and breast, acting in an allele dose-dependent manner., PTM: Generation of the subunits requires association with the death-inducing signaling complex (DISC), whereas additional processing is likely due to the autocatalytic activity of the activated protease. GZMB and CASP10 can be involved in these processing events., 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 18 kDa (p18) and a 10 kDa (p10) subunit. Interacts with FADD, CFLAR and PEA15. Isoform 9 interacts at the endoplasmic reticulum with a complex containing BCAP31, BAP29, BCL2 and/or BCL2L1. Interacts with TNFAIP8L2., tissue specificity: Isoforms 1, 5 and 7 are expressed in a wide variety of tissues. Highest expression in peripheral blood leukocytes, spleen, thymus, and liver. Barely detectable in brain, testis, and skeletal muscle.,

# Validation Data



Cleaved caspase-3 Cleaved caspase-8 Cleaved PARP β-actin β-actin Zhou, Li, et al. "Coptisine induces apoptosis in human hepatoma cells through activating 67-kDa laminin receptor/cGMP signaling." Frontiers in pharmacology 9 (2018).

Hou, Mengyi, et al. "Synergistic antitumor effect of suberoylanilide hydroxamic acid and cisplatin in osteosarcoma cells." Oncology letters 16.4 (2018): 4663-4670.



Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1,Cleaved-Caspase-8 (D384) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-kidney tissue. 1,Cleaved-Caspase-8 (D384) Polyclonal Antibody was diluted at 1:200(4°C,overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C,20min). 3,Secondary antibody was diluted at 1:200(room tempeRature, 30min). Negative control was used by secondary antibody only.



Immunofluorescence analysis of Human-breast-cancer tissue. 1,Cleaved-Caspase-8 (D384) Polyclonal Antibody(red) was diluted at 1:200(4°C,overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300(room temperature, 50min).3, Picture B: DAPI(blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Western blot analysis of lysates from 293 cells, treated with etoposide 25uM 1h, using Caspase 8 (Cleaved-Asp384) Antibody. The lane on the right is blocked with the synthesized peptide.

# **Contact information**

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Please scan the QR code to access additional product information: Cleaved Caspase-8 (Asp384) Rabbit pAb

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Antibody | ELISA Kits | Protein | Reagents