Product Name: Caspase-8 (phospho Tyr380) Rabbit Polyclonal Antibody
Catalog #: APRab04371

Summary

Production Name	Caspase-8 (phospho Tyr380) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	ELISA,WB,
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	CASP8
Alternative Names	CASP8; MCH5; Caspase-8; CASP-8; Apoptotic cysteine protease; Apoptotic protease Mch-5; CAP4; FADD-homologous ICE/ced-3-like protease; FADD-like ICE; FLICE; ICE-like apoptotic protease 5; MORT1-associated ced-3 homolog; MACH
Gene ID	841.0
SwissProt ID	Q14790.The antiserum was produced against synthesized peptide derived from human Caspase 8 around the phosphorylation site of Tyr380. AA range:346-395

Application

Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:10000. Not yet tested in other applications.
Molecular Weight	55kD

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Background

This gene encodes 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 composed of a prodomain, a large protease subunit, and a small protease subunit. Activation of caspases requires proteolytic processing at conserved internal aspartic residues to generate a heterodimeric enzyme consisting of the large and small subunits. This protein is involved in the programmed cell death induced by Fas and various apoptotic stimuli. The N-terminal FADD-like death effector domain of this protein suggests that it may interact with Fas-interacting protein FADD. This protein was detected in the insoluble fraction of the affected brain region from Huntington disease patients but not in those from normal controls, which implicated the role in neurodegenerative diseases. Many altcatalytic activity:Strict requirement for Asp at position P1 and has a preferred cleavage sequence of (Leu/Asp/Val)-Glu-Thr-Asp-|-(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 death-inducing 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 vaiations in CASP8 are associated with reduced risk of lung cancer [MIM:211980] in a population of Han Chinese subjects. Genetic vaiations 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

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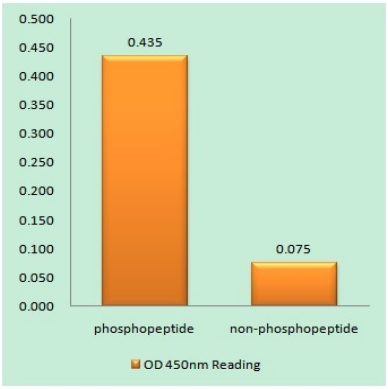
and/or BCL2L1. Interacts with TNFAIP8L2.,tissue specificity:Isoforms 1, 5 and 7 are expressed in a wide variety of tissues. Highest expression in peripheral blood leukocytes, spleen, thymus, and liver. Barely detectable in brain, testis, and skeletal muscle.,

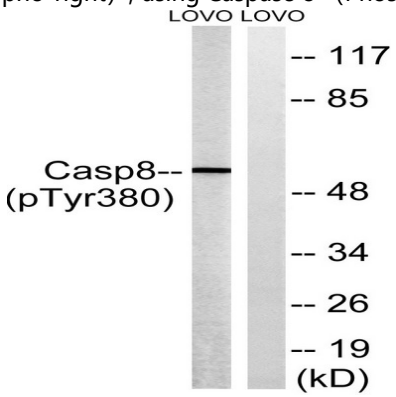
Research Area

p53;Apoptosis_Inhibition;Apoptosis_Mitochondrial;Apoptosis_Overview;Toll_Like;NOD-like receptor;RIG-I-like receptor;Alzheimer's disease;Huntington's disease;Pathways in cancer;Viral myocarditis;

Image Data



Enzyme-Linked Immunosorbent Assay （Phospho-ELISA） for Immunogen Phosphopeptide （Phospho-left） and Non-Phosphopeptide （Phospho-right）, using Caspase 8 （Phospho-Tyr380） Antibody



Western blot analysis of lysates from LOVO cells treated with UV 15 ', using Caspase 8 （Phospho-Tyr380） Antibody. The lane on the right is blocked with the phospho peptide.

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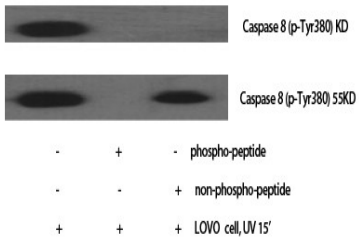

Western Blot analysis of various cells using Phospho-Caspase-8 (Y380) Polyclonal Antibody

Note

For research use only.