

Caspase-8 (2G12) Mouse mAb

CatalogNo: YM3377

Orthogonal Validated 

Key Features

Host Species

- Mouse

Reactivity

- Human, Mouse, Rat

Applications

- WB, IF, IHC

MW

- 43,57kD (Observed)

Recommended Dilution Ratios

WB 1:1000-2000

IHC 1:200-500

IF 1:200

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)**Formulation** PBS, pH 7.4, containing 0.5% BSA, 0.02% sodium azide as Preservative and 50% Glycerol.

Basic Information

Clonality Monoclonal**Clone Number** 2G12

Immunogen Information

Immunogen Recombinant Protein of Caspase-8**Specificity** The antibody detects endogenous Caspase-8 protein.

| Target Information

Gene name CASP8 MCH5

Protein Name Caspase8

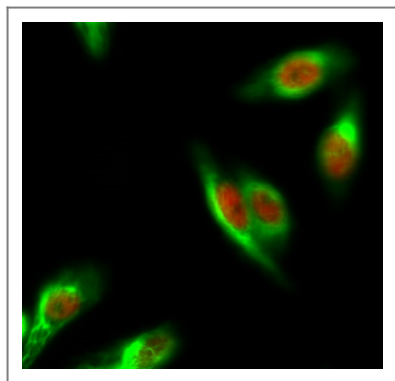
Organism	Gene ID	UniProt ID
Human	841 ;	Q14790 ;
Mouse	12370 ;	O89110 ;

Cellular Cytoplasm . Nucleus .
Localization

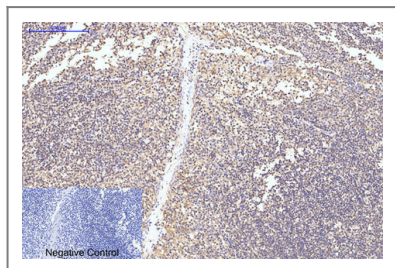
Tissue specificity Isoform 1, isoform 5 and isoform 7 are expressed in a wide variety of tissues. Highest expression in peripheral blood leukocytes, spleen, thymus and liver. Barely detectable in brain, testis and skeletal muscle.

Function Catalytic activity:Strict requirement for Asp at position P1 and has a preferred cleavage sequence of (Leu/Asp/Val)-Glu-Thr-Asp-|- (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 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.,

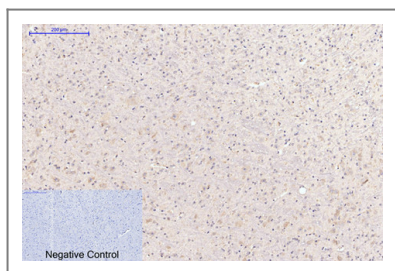
Validation Data



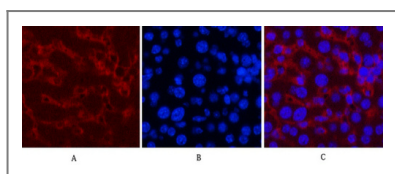
Immunofluorescence analysis of HeLa cell. 1, ERα Polyclonal Antibody (red) was diluted at 1:200 (4° overnight). Caspase-8 Monoclonal Antibody (2G12) (green) was diluted at 1:200 (4° overnight). 2, Goat Anti Rabbit Alexa Fluor 594 Catalog: RS3611 was diluted at 1:1000 (room temperature, 50min). Goat Anti Mouse Alexa Fluor 488 Catalog: RS3208 was diluted at 1:1000 (room temperature, 50min).



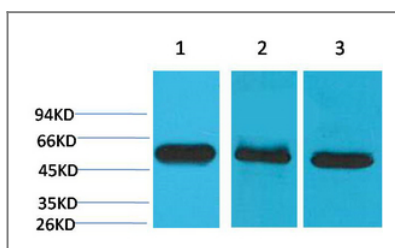
Immunohistochemical analysis of paraffin-embedded Human Tonsil tissue. 1, Caspase-8 Monoclonal Antibody (2G12) was diluted at 1:200 (4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse brain tissue. 1, Caspase-8 Monoclonal Antibody (2G12) 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 Mouse liver tissue. 1, Caspase-8 Monoclonal Antibody (2G12) (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled 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 1) HeLa, 2) Mouse Brain Tissue, 3) Rat Brain Tissue using Caspase-8 Monoclonal Antibody.

Contact information

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Please scan the QR code to access additional product information:
Caspase-8 (2G12) Mouse mAb

