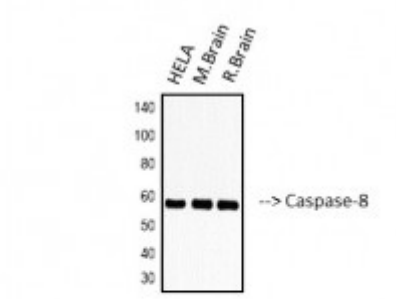
Anti-Caspase-8 antibody



Western Blot (WB) analysis of 1. HELA 2. Mouse brain 3. Rat brain cells using Caspase-8 Monoclonal Antibody. (STJ97394)

Description	Caspase-8 is a protein encoded by the CASP8 gene which is approximately 55,3 kDa. Caspase-8 is localised to the cytoplasm and is involved in the TNFR1 pathway, dimerization of procaspase-8, activated TLR4 signalling, apoptosis signalling and toll-like receptor signalling pathways. This protein falls under the cysteine-aspartic acid protease family. It pays a role in the programmed cell death induced by Fas and various apoptotic stimuli. Caspase-8 isoform 1, 5 and 7 are expressed in a wide variety of tissues. Mutations in the CASP8 gene may result in a caspase-8 deficiency. STJ97394 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This polyclonal antibody detects endogenous levels of Caspase-8 protein.

Model	STJ97394
Host	Mouse
Reactivity	Human, Mouse, Rat
Applications	IHC, WB
Immunogen	Recombinant Protein
Gene ID	841
Gene Symbol	CASP8
Dilution range	WB 1:1000-2000IHC1:200-500
Specificity	The antibody detects endogenous Caspase-8 protein.
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.

Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using epitope-specific immunogen.
Clone ID	2G12
Note	For Research Use Only (RUO).
Protein Name	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
Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG1
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:1509OMIM:211980
Alternative Names	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
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. Isoform 5, isoform 6, isoform 7 and isoform 8 lack the catalytic site and may interfere with the pro-apoptotic activity of the complex.
Sequence and Domain Family	Isoform 9 contains a N-terminal extension that is required for interaction with the BCAP31 complex.
Cellular Localization	Cytoplasm.
Post-translational Modifications	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. Phosphorylation on Ser-387 during mitosis by CDK1 inhibits activation by proteolysis and prevents apoptosis. This phosphorylation occurs in cancer cell lines, as well as in primary breast tissues and lymphocytes.