Caspase 8 (CASP8) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Caspase 8 (CASP8), Polyclonal Antibody
Full Product Name	Biotin-Linked Antibody to Caspase 8 (CASP8)
Product Gene Name	anti-CASP8 antibody
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Bovine
Form/Format	Supplied as solution form in PBS, pH7.4, containing 0.02% NaN3,50% glycerol.
Purity/Purification	Affinity Chromatography
Concentration	500ug/ml (lot specific)
Specificity	The antibody is a rabbit polyclonal antibody raised against CASP8 conjugated to biotin. It has been selected for its ability to recognize CASP8 in immunohistochemical staining andwestern blotting.
Preparation and Storage	Store at 4 degree C for frequent use. Stored at -20 degree C to -80 degree C in a manual defrost freezer for one year without detectable loss of activity. Avoid repeated freeze-thaw cycles.
Matching Pairs	Biotin Conjugated Antibody: CASP8 (MBS2004768) Immunogen: CASP8 (MBS2011460)
Matching Pairs	Unconjugated Antibody: CASP8 (MBS2007103) Biotin Conjugated Antibody: CASP8 (MBS2004768)
Molecular Weight	55,391 Da
Chromosome Location	Chromosome: 2; NC_000002.11 (202098166..202152434). Location: 2q33-q34
OMIM	211980
3D Structure	ModBase 3D Structure for Q14790
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Product Categories/Family for anti-CASP8 antibody	Biotin Antibody
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-CASP8 antibody	Immunohistochemistry (IHC), ELISA (EIA), Western Blot (WB)
Application Notes for anti-CASP8 antibody	Western blotting: 1:100-400 Immunocytochemistry in formalin fixed cells: 1:100-500 Immunohistochemistry in formalin fixed frozen section: 1:100-500 Immunohistochemistry in paraffin section: 1:50-200 Enzyme-linked Immunosorbent Assay: 1:100-200
Related Product Information for anti-CASP8 antibody	MBS2004768 is an antibody targeting CASP8. Also known as Biotin-Linked Antibody to Caspase 8 (CASP8). Reactive in Bovine. Host: Rabbit.

Other Notes	Small volumes of anti-CASP8 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CASP8. It may not necessarily be applicable to this product.

NCBI GI #	4583149
NCBI GeneID	841
NCBI Accession #	AAD24962.1
UniProt Primary Accession #	Q14790
UniProt Secondary Accession #	O14676; Q14791; Q14792; Q14793; Q14794; Q14795; Q14796; Q15780; Q15806; Q53TT5; Q8TDI1
UniProt Related Accession #	Q14790
NCBI Official Full Name	caspase 8
NCBI Official Synonym Full Names	caspase 8, apoptosis-related cysteine peptidase
NCBI Official Symbol	CASP8
NCBI Official Synonym Symbols	CAP4; MACH; MCH5; FLICE; ALPS2B; Casp-8
UniProt Protein Name	Caspase-8
UniProt Synonym Protein Names	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
Protein Family	Caspase
UniProt Gene Name	CASP8
UniProt Synonym Gene Names	MCH5; CASP-8; FLICE; MACH
UniProt Entry Name	CASP8_HUMAN
NCBI Protein Information	caspase-8; FADD-like ICE; MACH-alpha-1/2/3 protein; apoptotic protease Mch-5; MACH-beta-1/2/3/4 protein; apoptotic cysteine protease; ICE-like apoptotic protease 5; MORT1-associated ced-3 homolog; FADD-homologous ICE/CED-3-like protease; caspase 8, apoptosis-related cysteine protease
NCBI Summary for CASP8	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 alternatively spliced transcript variants encoding different isoforms have been described, although not all variants have had their full-length sequences determined. [provided by RefSeq, Jul 2008]

UniProt Comments for CASP8	CASP8: 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. 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. Interacts with human cytomegalovirus/HHV-5 protein vICA/UL36; this interaction inhibits CASP8 activation. 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. Belongs to the peptidase C14A family. 9 isoforms of the human protein are produced by alternative splicing. Protein type: Apoptosis; EC 3.4.22.61; Protease Chromosomal Location of Human Ortholog: 2q33-q34 Cellular Component: nucleoplasm; mitochondrial outer membrane; neuron projection; cytoskeleton; mitochondrion; Noc1p-Noc2p complex; cytoplasm; microtubule organizing center; CD95 death-inducing signaling complex; cytosol; lipid raft Molecular Function: peptidase activity; protein binding; protein heterodimerization activity; cysteine-type endopeptidase activity; ubiquitin protein ligase binding; death receptor binding; protein complex binding; tumor necrosis factor receptor binding; cysteine-type peptidase activity Biological Process: macrophage differentiation; T cell activation; viral reproduction; positive regulation of proteolysis; protein heterooligomerization; apoptosis; heart development; natural killer cell activation; response to lipopolysaccharide; toll-like receptor 3 signaling pathway; proteolysis; response to estradiol stimulus; response to antibiotic; proteolysis involved in cellular protein catabolic process; angiogenesis; positive regulation of macrophage differentiation; toll-like receptor 4 signaling pathway; cell structure disassembly during apoptosis; caspase activation; positive regulation of I-kappaB kinase/NF-kappaB cascade; B cell activation; MyD88-independent toll-like receptor signaling pathway; negative regulation of I-kappaB kinase/NF-kappaB cascade; response to ethanol; induction of apoptosis via death domain receptors; response to cobalt ion; toll-like receptor signaling pathway; innate immune response; response to cold; neural tube formation Disease: Caspase 8 Deficiency; Breast Cancer; Lung Cancer; Hepatocellular Carcinoma
Research Articles on CASP8	**1.** The del/del genotype of the CASP8 -652 6N ins/del promoter polymorphism decreases the overall risk of renal cell carcinoma. It may be associated with a decreased risk of metastasis.
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