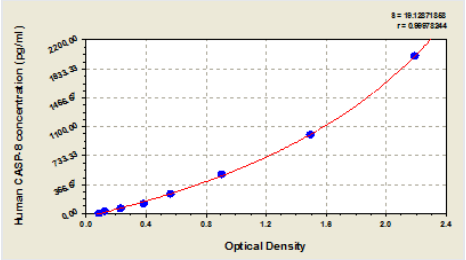
Caspase 8, Apoptosis-Related Cysteine Peptidase (CASP8) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	caspase 8, apoptosis-related cysteine peptidase (CASP8), ELISA Kit
Full Product Name	Human Caspase 8, Casp-8 ELISA Kit
Product Gene Name	CASP8 elisa kit
Product Synonym Names	Human Caspase 8 (Casp-8) ELISA Kit; ALPS2B; CAP4; Casp-8; FLICE; FLJ17672; MACH; MCH5; MGC78473; FADD-homologous ICE/CED-3-like protease; MACH-alpha-1/2/3 protein; MACH-beta-1/2/3/4 protein; OTTHUMP00000163720; caspase 8; caspase 8; apopto; caspase 8; apoptosis-related cysteine peptidase
Species Reactivity	Human
Samples	Serum, plasma, Cell lysates
Detection Range	31.25 pg/ml-2000 pg/ml
Sensitivity	7.8 pg/ml
Specificity	This assay has high sensitivity and excellent specificity for detection of Human CASP8. No significant cross-reactivity or interference between Human CASP8 and analogues was observed.
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV% is less than 8% Three samples of known concentration were tested twenty times on one plate to assess. Inter-assay Precision (Precision between assays): CV% is less than 10% Three samples of known concentration were tested in twenty assays to assess.
Molecular Weight	55,391 Da
OMIM	gene 607271
3D Structure	ModBase 3D Structure for Q14790
Detection Wavelength	450 nm
Sample Volume	50-100ul
Protein Biological Process 1	Apoptosis/Autophagy
Protein Biological Process 3	Apoptosis
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for CASP8 elisa kit	MBS701775 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the caspase 8, apoptosis-related cysteine peptidase (CASP8) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CASP8. The ELISA analytical biochemical technique of the MBS701775 kit is based on CASP8 antibody-CASP8 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CASP8 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CASP8. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of CASP8 elisa kit 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.



Typical Testing Data/Standard Curve (for reference only) of CASP8 elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	122056474
NCBI GeneID	841
NCBI Accession #	NP_001073593.1
UniProt Primary Accession #	Q14790
UniProt Secondary Accession #	O14676; Q14791; Q14792; Q14793; Q14794; Q14795; Q14796; Q15780; Q15806; Q53TT5; Q8TDI1
UniProt Related Accession #	Q14790
GenBank Nucleotide #	NM_001080124.1
NCBI Official Full Name	caspase-8 isoform C
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; MACH
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	**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.3 PublicationsManual assertion based on experiment in:Ref.7 **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).1 PublicationManual assertion based on experiment in:Ref.26 **Enzyme regulation:** Probably negatively regulated by RFFL through proteasomal degradation. Inhibited by the effector protein NleF that is produced by pathogenic E.coli; this inhibits apoptosis.1 PublicationManual assertion based on experiment in:Ref.26
Research Articles on CASP8	**1.** These results suggest that TRAIL inhibits VEGF-induced angiogenesis by increasing caspase-8 activity and subsequently decreasing non-apoptotic signaling functions of procaspase-8, without inducing caspase-3 activation and endothelial cell cytotoxicity.
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