

Datasheet for ABIN3044700

## Caspase 8 ELISA Kit



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### 1 Image

#### Overview

Quantity:	96 tests
Target:	Caspase 8 (CASP8)
Binding Specificity:	AA 217-384, AA 385-479
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

#### Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human Caspase 8
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Tissue Homogenate
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Immunogen sequence: S217-D384&L385-D479
Specificity:	Expression system for standard: E.coli Immunogen sequence: S217-D384&L385-D479
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<10pg/mL

## Product Details

Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g NaCl
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## Target Details

Target:	Caspase 8 (CASP8)
Alternative Name:	CASP8 ( <a href="#">CASP8 Products</a> )
Background:	<p>Protein 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-I-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. .</p> <p>Background: Caspase-8 is a caspase protein, encoded by the CASP8 gene. It is mapped to human chromosome 2q33-q34 and mouse chromosome 1B-proximal C. 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. And 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.</p> <p>Synonyms: Caspase-8,CASP-8,3.4.22.61,Apoptotic cysteine protease,Apoptotic protease Mch-5,CAP4,FADD-homologous ICE/ced-3-like protease,FADD-like ICE,FLICE,ICE-like apoptotic</p>

## Target Details

	protease 5,MORT1-associated ced-3 homolog,MACH,Caspase-8 subunit p18,Caspase-8 subunit p10,CASP8,MCH5, Full Gene Name: Caspase-8 Cellular Localisation: Cytoplasm.
Gene ID:	841
UniProt:	<a href="#">Q14790</a>
Pathways:	<a href="#">Apoptosis</a> , <a href="#">Caspase Cascade in Apoptosis</a> , <a href="#">TLR Signaling</a> , <a href="#">Activation of Innate immune Response</a> , <a href="#">Tube Formation</a> , <a href="#">Positive Regulation of Endopeptidase Activity</a> , <a href="#">Toll-Like Receptors Cascades</a>

## Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	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.
Plate:	Pre-coated
Protocol:	human Caspase 8 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for Caspase 8 has been precoated onto 96-well plates. Standards(Expression system for standard: E. coli, Immunogen sequence: S217-D384 & L385-D479) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Caspase 8 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human Caspase 8 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL human Caspase 8 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, tissue homogenates or serum to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human Caspase 8 standard solution and each sample be measured in duplicate.

Application Details

Restrictions:

For Research Use only

Handling

Handling Advice:

Avoid multiple freeze-thaw cycles.

Storage:

4 °C,-20 °C

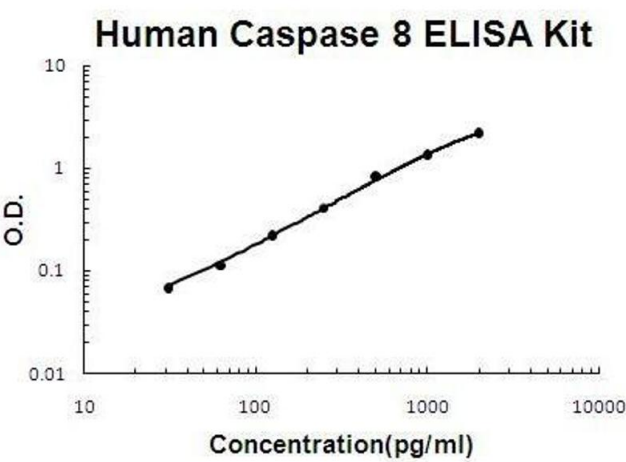
Storage Comment:

Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles

Expiry Date:

12 months

Images



**ELISA**

**Image 1.** Human Caspase 8 PicoKine ELISA Kit standard curve