ARG82849
Human Caspase 8 ELISA Kit

Package: 96 wells
Store at: 4°C

Component

Cat. No.	Component Name	Package	Temp
ARG82849-001	Antibody-coated microplate	8 X 12 strips	4°C. Unused strips should be sealed tightly in the air-tight pouch.
ARG82849-002	Standard	2 X 5 ng/vial	4°C
ARG82849-003	Standard/Sample diluent	30 ml (Ready to use)	4°C
ARG82849-004	Antibody conjugate concentrate (100X)	1 vial (100 µl)	4°C
ARG82849-005	Antibody diluent buffer	12 ml (Ready to use)	4°C
ARG82849-006	HRP-Streptavidin concentrate (100X)	1 vial (100 µl)	4°C
ARG82849-007	HRP-Streptavidin diluent buffer	12 ml (Ready to use)	4°C
ARG82849-008	20X Wash buffer	30 ml	4°C
ARG82849-009	TMB substrate	12 ml (Ready to use)	4°C (Protect from light)
ARG82849-010	STOP solution	12 ml (Ready to use)	4°C
ARG82849-011	Plate sealer	3 strips	Room temperature

Summary

Product Description	ARG82849 Human Caspase 8 ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human Caspase 8 in serum and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Target Name	Caspase 8
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	39 pg/ml
Sample Type	Serum and cell culture supernatants.
Standard Range	78 - 5000 pg/ml
Sample Volume	100 µl
Alternate Names	Casp-8; FADD-like ICE; EC 3.4.22.61; CAP4; ICE-like apoptotic protease 5; MORT1-associated ced-3 homolog; FLICE; Apoptotic cysteine protease; FADD-homologous ICE/ced-3-like protease; Caspase-8;

Application Instructions

Assay Time	~ 5 hours

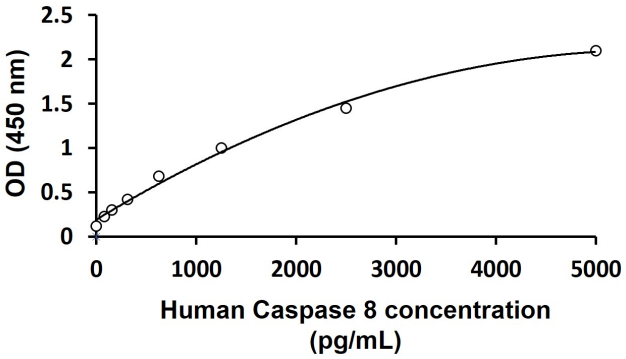
Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CASP8
Gene Full Name	caspase 8, apoptosis-related cysteine peptidase
Background	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]
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 (PubMed:23516580, PubMed:9006941). Cleaves RIPK1 at 'Asp-325' which is crucial for limiting apoptosis and necroptosis during embryonic development (By similarity). [UniProt]
Highlight	Related news: Ripoptosome & Necrosome antibody panels are launched
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. 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. [UniProt]
Cellular Localization	Cytoplasm. [UniProt]

Images



ARG82849 Human Caspase 8 ELISA Kit standard curve image

ARG82849 Human Caspase 8 ELISA Kit results of a typical standard run with optical density reading at 450 nm.