

ARG82810 Caspase 1 Activity Assay Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG82810 Caspase 1 Activity Assay Kit is a detection kit for the quantification of Caspase 1 activity in tissue extracts, cell lysates and other biological fluids.
Tested Reactivity	Hu, Ms, Rat, All
Tested Application	FuncSt
Target Name	Caspase 1
Conjugation Note	Read at 405 nm.
Detection Range	5 - 500 µmol/L
Sample Type	Tissue extracts, cell lysates and other biological fluids.
Sample Volume	40 µl
Alternate Names	Caspase-1; Interleukin-1 beta-converting enzyme; IL-1 beta-converting enzyme; CASP-1; ICE; IL-1BC; Interleukin-1 beta convertase; P45; IL1BC; p45; EC 3.4.22.36

Application Instructions

Assay Time	~ 1 hour
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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	CASP1
Gene Full Name	caspase 1, apoptosis-related cysteine peptidase
Background	This gene encodes a protein which is 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 which undergo proteolytic processing at conserved aspartic residues to produce 2 subunits, large and small, that dimerize to form the active enzyme. This gene was identified by its ability to proteolytically cleave and activate the inactive precursor of interleukin-1, a cytokine involved in the processes such as inflammation, septic shock, and wound healing. This gene has been shown to induce cell apoptosis and may function in various developmental stages. Studies of a similar gene in mouse suggest a role in the pathogenesis of Huntington disease. Alternative splicing results in transcript variants encoding distinct isoforms. [provided by RefSeq, Mar 2012]
Function	Thiol protease that cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes. Important for defense against pathogens. Cleaves and

activates sterol regulatory element binding proteins (SREBPs). Can also promote apoptosis. Upon inflammasome activation, during DNA virus infection but not RNA virus challenge, controls antiviral immunity through the cleavage of CGAS, rendering it inactive (PubMed:28314590). In apoptotic cells, cleaves SPHK2 which is released from cells and remains enzymatically active extracellularly (PubMed:20197547). [UniProt]

Highlight

Related products:

[Caspase 1 antibodies](#); [Caspase 1 ELISA Kits](#); [Caspase 1 Duos / Panels](#);

Related news:

[RIP1 activation and pathogenesis of NASH](#)

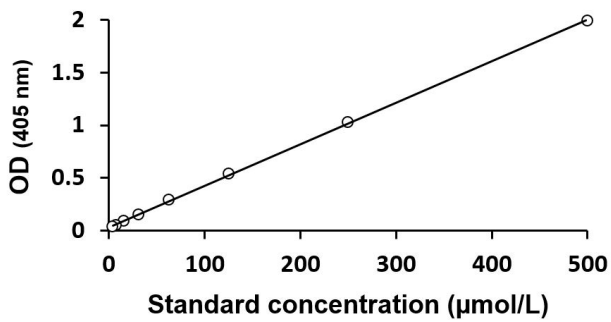
PTM

The two subunits are derived from the precursor sequence by an autocatalytic mechanism. [UniProt]

Cellular Localization

Cytoplasm. [UniProt]

Images



ARG82810 Caspase 1 Activity Assay Kit standard curve image

ARG82810 Caspase 1 Activity Assay Kit results of a typical standard run with optical density reading at 405 nm.