Caspase-10/CASP10 Protein, Human (His)

Cat. No.:	HY-P7742
Synonyms:	rHuCaspase-10, His; Caspase-10; CASP-10; Apoptotic Protease Mch-4; ICE-Like Apoptotic Protease 4; CASP10; MCH4
Species:	Human
Source:	E. coli
Accession:	Q92851-4 (V220-R472)
Gene ID:	843
Molecular Weight:	Approximately 33.0 kDa

PROPERTIES

AA Sequence	V K T F L E A L P Q E S W Q N K H A G S N G N R A T N G A P S L V S R G M Q G A S A N T L N S E T S T K R A A V Y R M N R N H R G L C V I V N N H S F T S L K D R Q G T H K D A E I L S H V F Q W L G F T V H I H N N V T K V E M E M V L Q K Q K C N P A H A D G D C F V F C I L T H G R F G A V Y S S D E A L I P I R E I M S H F T A L Q C P R L A E K P K L F F I Q A C Q G E E I Q P S V S I E A D A L N P E Q A P T S L Q D S I P A E A D F L L G L A T V P G Y V S F R H V E E G S W Y I Q S L C N H L K K L V P R H E D I L S I H H H H H H
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filter solution of 25 mM HEPES, 10 mM DTT, pH 7.5.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	Caspase-10 (CASP10) is a 521 amino acid protein member of the cysteine-aspartic acid protease (caspase) family. Caspase-10 contains two DED (Death Effector) domains and can be detected in many tissues[1]. Caspases are a family of cytosolic aspartate-specific cysteine proteases involved in the execution-phase of cell apoptosis, CASP10 is cleaved to two active subunits: Caspase-10 subunit p23/17, Caspase-10 subunit p12[2].

Caspase-10 belongs to the apoptosis initiation caspase (caspase-2, -8, -9, -and -10). Caspase-10 cleavage activates caspases 3 and 7, but itself is processed by caspase 8[3].

REFERENCES

[1]. Katherine Wachmann, et al. Activation and specificity of human caspase-10. Biochemistry. 2010 Sep 28;49(38):8307-15.

[2]. Sebastian Horn, et al. Caspase-10 Negatively Regulates Caspase-8-Mediated Cell Death, Switching the Response to CD95L in Favor of NF-κB Activation and Cell Survival. Cell Rep. 2017 Apr 25;19(4):785-797.

[3]. Andrea Mohr, et al. Caspase-10: a molecular switch from cell-autonomous apoptosis to communal cell death in response to chemotherapeutic drug treatment. Cell Death Differ. 2018 Feb;25(2):340-352.

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