Human CASP7 / caspase 7 / MCH3 Protein (His Tag)

Catalog Number: **10049-H08E**

General Information

Gene Name Synonym:

CASP-7; CMH-1; ICE-LAP3; LICE2; MCH3

Protein Construction:

A DNA sequence encoding the human CASP7 (P55210-1) (Met 1-Gln 303) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Ala 24 & Ala 207

Molecular Mass:

The full length of recombinant human CASP7 comprises 313 amino acids and has a calculated molecular mass of 35KDa. As a result of proteolytic cleavage, the apparent molecular mass of the protein is approximately 20 & 11 kDa ,corresponding to the N-reminal P20 subunit and the C-teminal p11 subunit respectively in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM HEPES, 100mM NaCl, 1mM EDTA, 0.10% Sucrose, 0.1% chaps, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

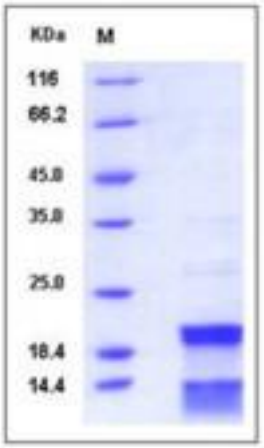
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Caspase 7, also known as caspase-7 and MCH3, belongs to the cysteine-aspartic acid protease (caspase) family. Caspases play a role in the signal transduction pathways of apoptosis, necrosis and inflammation. There are two major classes of caspases: initiators and effectors. The initiator isoforms (caspases-1,-4,-5,-8,-9,-10,-11,-12) are activated by, and interact with, upstream adaptor molecules through protein-protein interaction domains known as CARD and DED. Effector caspases (-3,-6,-7) are responsible for cleaving downstream substrates and are sometimes referred to as the executioner caspases. Caspase 7 exists in lung, skeletal muscle, liver, kidney, spleen and heart, and moderately in testis. Caspase 7 cannot be detected in the brain. Caspase 7 functions in the activation cascade of caspases responsible for apoptosis execution. It cleaves and activates sterol regulatory element binding proteins (SREBPs). It proteolytically cleaves poly(ADP-ribose) polymerase (PARP) at a '216-Asp--Gly-217' bond. Overexpression promotes programmed cell death.

References

1.Riedl S J, *et al.* (2001) Structural basis for the inhibition of caspase-3 by XIAP. Cell. 104(5):791-800. 2.Roy N, *et al.* (1997) The c-IAP-1 and c-IAP-2 proteins are direct inhibitors of specific caspases. EMBO J. 16(23):6914-25. 3.Deveraux Q L, *et al.* (1997) X-linked IAP is a direct inhibitor of cell-death proteases. Nature. 388(6639): 300-4.