

32-6689: CASP3 Human, Sf9

Application : Functional Assay
Alternative Name : CASP3, CPP32, CPP32B, SCA-1, CASP-3, Apopain, Cysteine protease CPP32, CPP-32, Protein Yama, SREBP cleavage activity 1.

Description

Source: Sf9, Baculovirus cells.

Sterile Filtered colorless solution.

Caspase 3 Apoptosis-Related Cysteine Peptidase (CASP3) belongs to the cysteine-aspartic acid protease (caspase) family. Sequential activation of caspases plays a key role in the execution-phase of cell apoptosis. Caspases exist as inactive proenzymes which undergo proteolytic processing at conserved aspartic residues to generate 2 subunits, large and small, that dimerize to create the active enzyme. CASP3 protein cleaves and activates caspases 6, 7 and 9, and the protein itself is processed by caspases 8, 9 and 10. CASP3 is the leading caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is linked with neuronal death in Alzheimer's disease. In addition, CASP3 is involved in the cleavage of huntingtin. CASP3 also cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. CASP3 initiates cell adhesion in sympathetic neurons through RET cleavage.

CASP3 Human produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 256 amino acids (29-277 a.a.) and having a molecular mass of 29.4kDa (Migrates at 13.5-18kDa on SDS-PAGE under reducing conditions). CASP3 is expressed with a 6 amino acid His tag at C-Terminus and purified by proprietary chromatographic techniques.

Product Info

Amount : 1 µg / 5 µg
Purification : Greater than 90.0% as determined by SDS-PAGE.
Content : CASP3 protein solution (0.5mg/ml) containing 20mM HEPES buffer (pH 7.5), 0.1M NaCl, 1mM EDTA, 20% Glycerol and 1mM DTT.
Storage condition : Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.
Amino Acid : MSGISLDNSY KMDYPEMGLC IIINNKNFHK STGMTSRSGT DVDAANLRET FRNLKYEVRNKNDLTREEIV
ELMRDVSKED HSKRSSFVCV LLSHGEEGII FGTNGPVDLK KITNFFRGDRCSRSLTGKPKL FIIQACRGTE
LDCGIETDSG VDDDMACHKI PVEADFLYAY STAPGYYSWRNSKDGSWFIQ SLCAMLKQYA DKLEFMHILT
RVNRKVATEF ESFSFDATFH AKKQIPCIVS MLTKELYFYH HHHHHH

Application Note

Specific activity is $\geq 5,000$ pmol/min/ug. One unit will liberate 1 pmoles of Ac-DEVD-AFC to Ac-DEVD and AFC per minute at pH7.5 at 25C.