Recombinant CED3 protein (His tag)

Catalog Number	533238
Synonyms	Caspase ced-3
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P42573
Gene ID	178272
Molecular Weight	Predictes a molecular mass of 18.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	222-369
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 222-369 aa (P42573) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Cell Death Protein 3 (Caspase ced-3) Fragment (residues 222-369) from Caenorhabditis elegans. This 148-amino acid fragment represents a stable, soluble region of the key apoptotic cysteine protease, ideal for structural studies, biochemical assays, and apoptosis mechanism research. Cell Death Protein 3 (ced-3) is a central cysteine protease (EC 3.4.22.60) in Caenorhabditis elegans that executes programmed cell death through the proteolytic activation or inactivation of diverse substrates. As a critical component of the egl-1/ced-9/ced-4/ced-3 apoptotic cascade, it initiates developmental apoptosis in embryonic and postembryonic cells. Beyond core apoptosis, ced-3 regulates phosphatidylserine exposure for phagocytosis via ced-8 cleavage, promotes chromosomal DNA fragmentation through dcr-1 activation, and modulates mitochondrial removal via drp-1 cleavage. It localizes to multiple compartments including the nucleus membrane, cytoplasm, perinuclear region, mitochondria, and synapses, reflecting its multifaceted roles in germline apoptosis, larval development, axonal regrowth, and infection response. The full-length protein undergoes cleavage into p17, p15, and p13 subunits during activation.