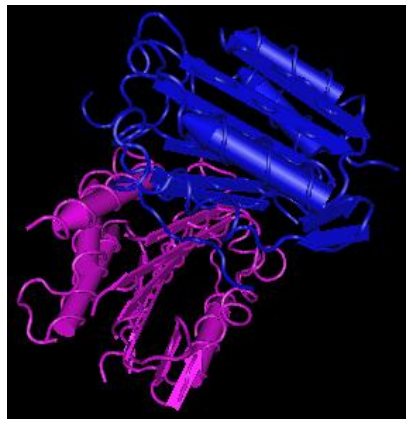
Product Data Sheet

Chemical Properties

Product Name:	Caspase-3, human recombinant proteinase
Gene ID.:	836
Accession #	P42574
M.Wt:	large (17 kD) and small (11 kD) subunits
Formulation:	Semi-Dry powder
Alternate Names:	Active Human Caspase-3, Active Caspase-3, Caspase-3 Enzyme, Recombinant caspase-3, human caspase-3, human caspases, active caspases, CPP32, Yama, Apopain.
Source:	Escherichia Coli.
Appearance:	Semi-Dry powder
Solubility:	Reconstitute in PBS containing 15% glycerol.
Storage:	Store at -70℃
Shopping Condition:	Gel pack.
Handling:	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans



Biological Activity

Description:

Caspase-3 is a major member of the caspase-family of cysteine proteases. Caspase-3 exists in cells as an inactive 32 kDa proenzyme. During apoptosis, procaspase-3 is processed at aspartate residues by self-proteolysis and/or cleavage by upstream caspases, such as caspase-6, caspase-8 and grazyme B. The active caspase-3 consists of large (17 kD) and small (11 kD) subunits. The active caspase-3 is involved in the proteolysis of poly (ADP-ribose) polymerase (PARP), the sterol regulatory element binding proteins (SREBPs), focal adhesion kinase (FAK), and others. Caspase-3 is the predominant caspase involved in the cleavage of amyloid-beta 4A precursor protein, which is associated with Alzheimer's disease. The recombinant active human caspase-3 expressed in E. coli spontaneously undergoes autoprocessing to yield subunits characteristic of the native enzyme. The active caspase-3 preferentially cleaves caspase-3 substrates (DEVD-AFC or DEVD-pNA) and is routinely tested for its ability to enzymatically cleave Ac-DEVD-pNA or Ac-DEVD-AFC. Active caspase-3 is useful in studying enzyme regulation, determining target substrates, screening caspase inhibitors, or as a positive control in caspase activity assays. Recommend using 1 unit/assay for analyzing caspase activity.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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