

**Caspase-3, human recombinant protein****Caspase-3****Catalog # PBV10012r****Specification**

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**Caspase-3, human recombinant protein - Product info**

Primary Accession

[P42574](#)

Calculated MW

**large (17 kD) and small (11 kD) subunits**  
**KDa****Caspase-3, human recombinant protein - Additional Info**

Gene ID

**836**

Gene Symbol

**CASP3****Other Names**

Caspase-3, CASP-3, Apopain, Cysteine protease CPP32, CPP-32, Protein Yama, SREBP cleavage activity 1, SCA-1

Gene Source

**Human**

Source

**E.coli**

Assay&amp;Purity

**SDS-PAGE;**

Assay2&amp;Purity2

**HPLC;**

Recombinant

**Yes****Target/Specificity**

Caspase-3

**Application Notes**

Reconstitute in PBS containing 15% glycerol.

**Format**

Semi-Dry

**Storage**

-70°C; Semi-Dry

**Caspase-3, human recombinant protein - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Caspase-3, human recombinant protein - Images**

### **Caspase-3, human recombinant protein - Background**

Caspase-3 (also known as CPP32, Yama and apopain) 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 (Mch2), caspase-8 (Flice) and granzyme B. The processed form of caspase-3 consists of large (17 kD) and small (11 kD) subunits which associate to form the active enzyme. The active caspase-3 has been shown involving in the proteolysis of several important molecules, such as poly (ADP-ribose) polymerase (PARP), the sterol regulatory element binding proteins (SREBPs), focal adhesion kinase (FAK), and others. The recombinant active human caspase-3 expressed in *E. coli* spontaneously undergoes autoprocessing to yield subunits characteristic of the native enzyme (Full length gene Accession No. NP\_004337). The active caspase-3 preferentially cleaves caspase-3 substrates (e.g., DEVD-AFC or DEVD-pNA) and is routinely tested at BioVision for its ability to enzymatically cleave these two substrates Ac-DEVD-pNA or Ac-DEVD-AFC.

### **Caspase-3, human recombinant protein - References**

Fernandes-Alnemri T., et al. *J. Biol. Chem.* 269:30761-30764(1994).  
Tewari M., et al. *Cell* 81:801-809(1995).  
Pelletier M., et al. *Biochem. Biophys. Res. Commun.* 316:93-99(2004).  
Ota T., et al. *Nat. Genet.* 36:40-45(2004).  
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