

Caspase-3 (human), (recombinant) (active)

Highly active caspase essential for apoptosis

Caspase-3 is a member of the interleukin-1 β converting enzyme (ICE) family of cysteine proteases. It exists in cells as an inactive 32kDa 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 granzyme B. The processed form of caspase-3 consists of large (17kDa) and small (11kDa) subunits which associate to form the active enzyme. Active caspase-3 has been shown involved 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.

Citations: 17

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Ordering Information

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ALX-201-059-U025	25U
ALX-201-059-U100	100U

Manuals, SDS & CofA

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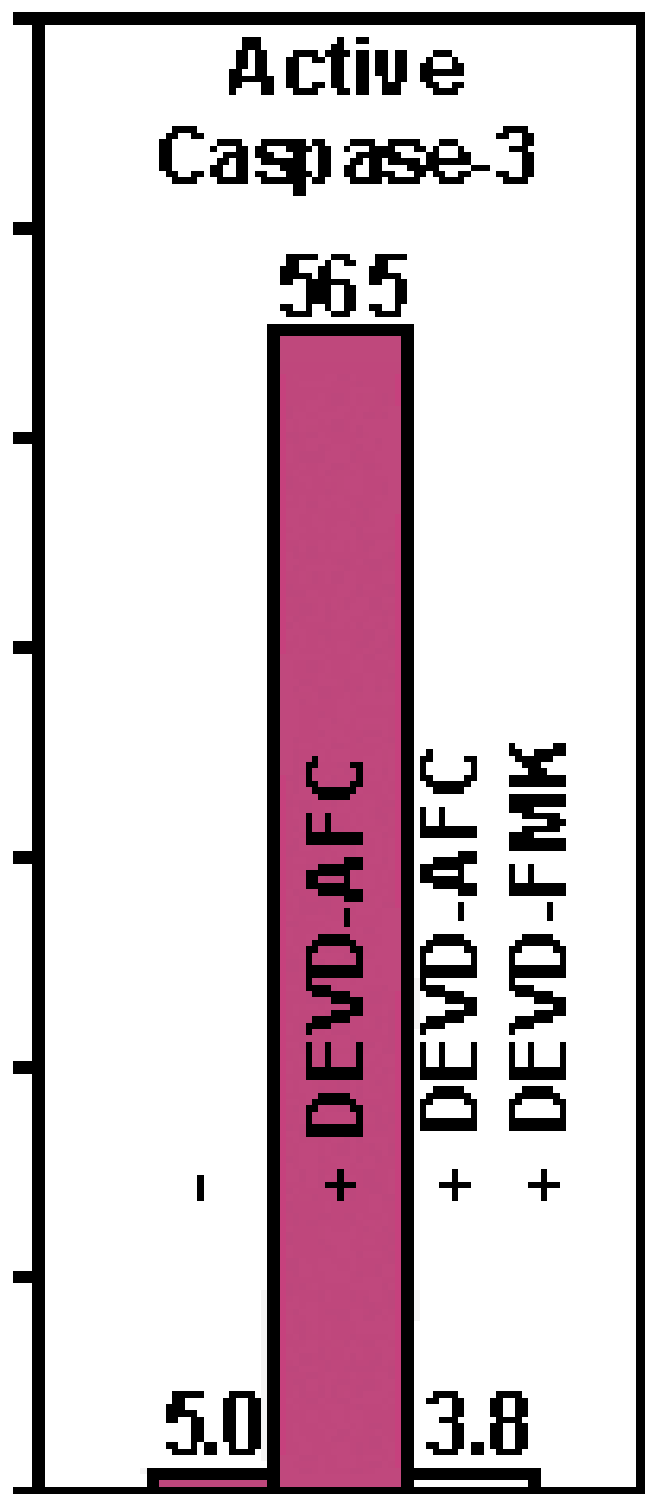


Figure: Active human caspase was expressed in *E. coli* and purified. The activity of recombinant caspase-3 was determined by cleaving AFC conjugates of DEVD. The cleavage activity was effectively inhibited by the corresponding peptide inhibitor as indicated.

Handling & Storage

Handling	Avoid freeze/thaw cycles. After reconstitution, prepare aliquots and store at -80°C.
Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name CPP32, Yama, Apopain

Application Notes Useful in studying enzyme regulation, determining target substrate, screening caspase inhibitors, or as a positive control in caspase assays. We recommend using 1 unit per assay for analyzing caspase activity.
For a complete caspase-3 assay protocol, please refer to Caspase-3 Fluorometric or Colorimetric Assay Kits (Prod. No. ALX-850-216 or ALX-850-215).

Formulation Lyophilized.

Quality Control Routinely tested for its ability to cleave the caspase-3 substrates Ac-DEVD-pNA (Prod. No. ALX-260-033) and Ac-DEVD-AFC (Prod. No. ALX-260-032).

Reconstitution Reconstitute to 1U/μl in water.

Source Produced in *E. coli*. Contains an N-terminal His-tag.

Specific Activity ≥15,000 U/mg protein. One unit is defined as the amount of enzyme that cleaves 1nmol of the caspase substrate DEVD-pNA (Prod. No. ALX-260-033) per hour at 37°C in a reaction solution containing 50mM HEPES, pH 7.2, 50mM NaCl, 0.1% CHAPS, 10mM EDTA, 5% glycerol and 10mM DTT.

UniProt ID P42574



ENZO LIFE SCIENCES,
INC.
Phone: 800.942.0420
usa@enzolifesciences.com

European Sales Office
ENZO LIFE SCIENCES
(ELS) AG
Phone: +41 61 926 8989
info-
eu@enzolifesciences.com

Belgium, The Netherlands
& Luxembourg
Phone: +32 3 466 0420
info-
be@enzolifesciences.com

France
Phone: +33 472 440 655
info-
fr@enzolifesciences.com

Germany
Phone: +49 7621 5500 526
info-
de@enzolifesciences.com

UK & Ireland
Phone (UK customers):
0845 601 1488
Phone: +44 1392 825900
info-
uk@enzolifesciences.com