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A Geno Technology, Inc. (USA) brand name

Active Recombinant Human Caspase-3

(Cat. #RCH-003)



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INTRODUCTION

Caspase-3 is a member of the interleukin-1, β -converting enzyme (ICE) family of cysteine proteases. It exists in cells as an inactive 32 kDa pro-enzyme. 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 kDa) and small (11 kDa) subunits, which associate to form the active enzyme.

ITEM(S) SUPPLIED

Cat. #	Description	Size
RCH-003	Active Recombinant Human Caspase-3 (Lyophilized powder)	25 Units

STORAGE CONDITIONS:

It is shipped in blue ice. The lyophilized caspase-3 is stable for 1 year at -70°C .

Following reconstitution in PBS, the enzyme should be aliquoted and stored at -70°C .

NOTE: Avoid multiple freeze/thaw cycles as activity might decrease.

UNIT DEFINITION:

One unit of the recombinant caspase-3 is the enzyme activity that cleaves 1 nmol of the caspase substrate DEVD-pNA (pNA: *p*-nitroaniline) 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.

SPECIFIC ACTIVITY

300,000 units / mg

PREPARATION BEFORE USE

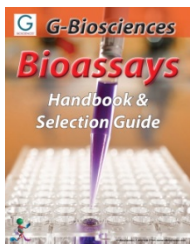
Reconstitute the supplied Casapse-3 to 1 unit per μl in PBS.

APPLICATIONS AND USAGE

The active recombinant human caspase-3 expressed in *E. coli*, spontaneously undergoes auto-processing to yield subunits characteristic of the native enzyme. Active caspase-3 preferentially cleaves caspase-3 substrate (e.g. DEVD-AFC or DEVD-pNA). 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. In combination with caspase-3 activity assays, the active recombinant caspase-3 is useful in studying enzyme regulation, determining target substrate and screening caspase inhibitors. It also can be used as a positive control in caspase assays. We recommend using 1 unit/assay for analyzing caspase activity.

RELATED PRODUCTS

Download our Bioassays Handbook.



<http://info.gbiosciences.com/complete-bioassay-handbook>

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