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# Active Recombinant Human Caspase-7

(Cat. # RCH-007)



#### INTRODUCTION

Caspase-7 is a member of the interleukin-1- $\beta$  converting enzyme (ICE) family of cysteine proteases. It exists in cells as an inactive proenzyme. During apoptosis procaspase-7 is processed at aspartate residues by self-proteolysis and/or cleavage by another caspase. The processed form of caspase-7 consists of large and small subunits, which associate to form the active enzyme. The active caspase-7 has been shown involving in the proteolysis of poly (ADP-ribose) polymerase (PARP), an enzyme involved in DNA repair and genomic maintenance.

### ITEM(S) SUPPLIED (Cat. # RCH-007)

Description	Size
Active Recombinant Human Caspase-7 (Lyophilized)	25 Units

#### STORAGE CONDITIONS:

It is shipped in blue ice. The lyophilized caspase-7 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-7 is the enzyme activity that cleaves 1 nmol of the caspase substrate DEVD-pNA (pNA: p-nitroanaline) 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

25,000 units/mg

#### PREPARATION BEFORE USE

Reconstitute the supplied Caspase-7 to 1 unit per µl in PBS.

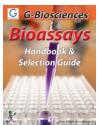
## **APPLICATIONS AND USAGE**

The active recombinant human caspase-7 expressed in *E. coli*, spontaneously undergoes auto-processing to yield subunits characteristic of the native enzyme. Active caspase-7 preferentially cleaves substrate consisting of consensus sequence DEVD. The active caspase-7 has been shown to be involved in the proteolysis of important molecules, such as poly (ADP-ribose) polymerase (PARP).

In combination with caspase activity assays, the active recombinant caspase-7 is useful in studying enzyme regulation, determining target substrate and screening caspase inhibitors. It also can be used as a positive control in caspase activity assays. We recommend using 1 unit/assay for analyzing caspase activity.

# **RELATED PRODUCTS**

Download our Bioassays Handbook.



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