

# Active Recombinant Human Caspase-9

**CATALOG #:** 1089-25 25 units  
1089-100 100 units

**LOT #:** \_\_\_\_\_

## UNIT DEFINITION:

One unit of the recombinant caspase-9 is the enzyme activity that cleaves 1 nmol of the caspase substrate LEHD-pNA (pNA: p-nitroaniline) per hour at 37°C in a reaction solution containing 50 mM Hepes, pH 7.2, 50 mM NaCl, 0.1% Chaps, 10 mM EDTA, 5% Glycerol, and 10 mM DTT.

**FORM:** Lyophilized powder

**RECONSTITUTION:** Reconstitute to 1 unit per  $\mu$ l in PBS containing 15% glycerol.

**SPECIFIC ACTIVITY:** 400 units/mg

**PURITY:**  $\geq$ 90% by SDS-PAGE

## STORAGE CONDITIONS:

The lyophilized caspase-9 is stable for 1 year at  $-70^{\circ}\text{C}$ . Following reconstitution in PBS, the enzyme should be aliquoted and immediately stored at  $-70^{\circ}\text{C}$ . Avoid multiple freeze/thaw cycles as activity might decrease.

## DESCRIPTION:

Caspase-9 is a member of the caspase-family of cysteine proteases. Similar to other caspases, caspase-9 also exists in cells as an inactive proenzyme. During the initiation of apoptosis procaspase-9 is processed at aspartate residues to form active caspase-9. As one of the initiator caspases, active caspase-9 functions to trigger activation of downstream effector caspases, leading to disassembly of cell structures.

The recombinant active human caspase-9 was expressed in *E. coli*. The active caspase-9 is routinely tested at BioVision for its ability to enzymatically cleave these two substrates Ac-LEHD-pNA (Cat. #1076-200) or Ac-LEHD-AFC (1075-200).

## APPLICATIONS AND USAGE:

Active caspase-9 is useful in studying enzyme regulation, determining target substrates, screening caspase inhibitors, or as a positive control in caspase activity assays. We recommend using 1 unit/assay for analyzing caspase activity.

For a complete caspase-9 assay protocol, please refer to BioVision's Caspase-9 Fluorometric or Colorimetric Assay Kits (Cat.#: K118 and K119).

## RELATED PRODUCTS:

### Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptotic Cell Isolation Kit

### Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

### Cell Proliferation & Senescence

- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

### Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

### Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

### Adipocyte & Lipid Transfer

- Recombinant Adiponectin, Survivin, & Leptin
- CETP Activity Assay & Drug Discovery Kits
- PLTP Activity Assay Kit
- Total Cholesterol Quantification Kit

### Molecular Biology & Reporter Assays

- siRNA Vectors
- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit
- $\beta$ -Galactosidase Staining Kit & Luciferase Reporter Assay Kit

### Growth Factors and Cytokines

Quality Antibodies for Apoptosis and Signal Transduction Molecules