

Active Caspase-1, rat recombinant

CATALOG #:	7524-25	25 units
	7524-100	100 units
ALTERNATE NAMES:	Interleukin-1 beta convertase, Interleukin-1 beta-converting enzyme, IL-1BC, p45.	
SOURCE:	<i>E.Coli</i>	
FORM:	Semi-dry	
RECONSTITUTION:	Reconstitute to 1 unit per μ l in PBS containing 15% glycerol.	
MOL. WEIGHT:	~ 34.6 kDa	
SPECIFIC ACTIVITY:	>3000 units/mg	

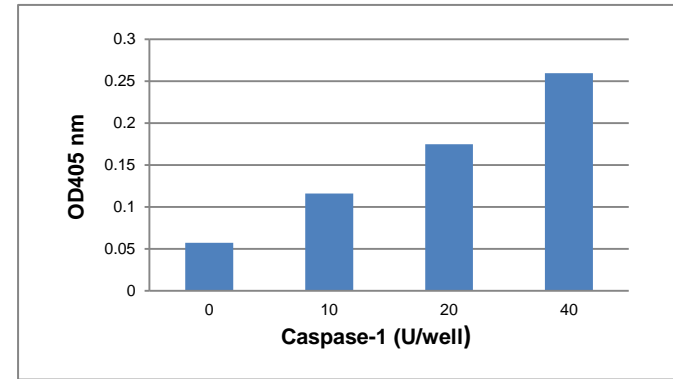
UNIT DEFINITION: One unit of the recombinant caspase-1 is the enzyme activity that cleaves 1 nmol of the caspase substrate Ac-YVAD-pNA (pNA: p-nitroaniline) per hour at 37°C in a reaction solution containing 50 mM Hepes, pH 7.2, 50 mM NaCl, 0.1% Chaps, 10 mM EDTA, 5% Glycerol, and 10 mM DTT.

STORAGE CONDITIONS: The lyophilized caspase-1 is stable for 1 year at -70°C. Following reconstitution in PBS, the enzyme should be aliquoted and stored immediately at -70°C. Avoid multiple freeze/thaw cycles as activity might decrease.

DESCRIPTION: Caspase-1 (also known as ICE) is a prototypical member of the caspase-family of cysteine proteases. Caspase-1 exists in cells as an inactive 45 kDa proenzyme. The pro-enzyme is matured by proteolysis to yield large (20 kDa) and small (10 kDa) subunits. The active caspase-1 is a heterotetramer consisting of two large and two small subunits. To date the regulatory mechanism of caspase-1 activation and the role of caspase-1 in apoptosis are poorly understood. In THP-1 cells, a large proportion of the caspase-1 is present in the inactive proenzyme form. The recombinant rat caspase-1 was expressed in *E. coli* as a single polypeptide of 284 amino acids with molecular weight of 34.6. The caspase-1 is purified and activated by proprietary techniques.

APPLICATIONS AND USAGE: Active caspase-1 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-1 assay protocol, please refer to BioVision's Caspase-1 Fluorometric or Colorimetric Assay Kits (Cat #s K110 and K111).

ACTIVITY ASSAY: The caspase-1 is routinely tested at BioVision for its ability to cleave these two substrates Ac-YVAD-pNA (Cat. #1104-200) or Ac-YVAD-AFC (1103-200).



rr-Caspase-1 activity was measured by Caspase-1 Colorimetric Assay Kit (K111-100). The indicated enzyme is incubated with substrate for 10 minutes at 37°C.

RELATED PRODUCTS:

- Caspase-1, human recombinant (Cat. No. 1081-25, -100)
- Caspase-1, mouse recombinant (Cat. No. 1181-25, -100)
- Caspase-2, human recombinant (Cat. No. 1082-25, -100)
- Caspase-3, human recombinant (Cat. No. 1083-5, -10, -25, -100)
- Caspase-3, mouse recombinant (Cat. No. 1183-25, -100)
- Caspase-3 Proform, mouse recombinant (Cat. No. 1183P-5)
- Caspase-3, rat recombinant (Cat. No. 1283-25, -100)
- Caspase-4, human recombinant (Cat. No. 1084-25, -100)
- Caspase-5, human recombinant (Cat. No. 1085-25, -100)
- Caspase-6, human recombinant (Cat. No. 1086-25, -100)
- Caspase-7, human recombinant (Cat. No. 1087-25, -100)
- Caspase-8, human recombinant (Cat. No. 1088-25, -100)
- Caspase-8, mouse recombinant (Cat. No. 1188-25, -100)
- Caspase-9, human recombinant (Cat. No. 1089-25, -100)
- Caspase-9 Proform, human recombinant (Cat. No. 1089P-50)
- Caspase-10/a, human recombinant (Cat. No. 1090A-25, -100)
- Caspase-10/b, human recombinant (Cat. No. 1090B-25, -100)

For Research Use Only! Not to be used in humans.