



HUMAN CASPASE-1 (ACTIVE) RECOMBINANT PROTEIN

CATALOG NUMBER: CC126

LOT NUMBER:

QUANTITY: 25 units*

* Where one unit of the recombinant caspase-1 is the enzyme activity that cleaves 1 nmol of the caspase substrate YVAD-pNA (pNA: pnitroanaline) per hour at 37°C at saturated substrate concentrations.

SPECIFICITY: Caspase-1 (also known as ICE, Interleukin-1 β -Converting Enzyme) is the prototypical member of the caspase family of cysteine proteases. Caspase-1 exists in cells as an inactive 45 kD pro-enzyme. The pro-enzyme is matured by proteolysis to yield large (20 kD) and small (10 kD) subunits. The active enzyme is a heterotetramer consisting of two large and two small subunits. To date the mechanism of regulation of caspase-1 activation is complex and poorly understood. In THP-1 cells, a large proportion of the caspase-1 is present in the inactive pro-enzyme form.

The active recombinant human caspase-1 was expressed in *E. coli*. The expressed caspase-1 spontaneously undergoes autoprocessing to yield the subunits characteristic of the native enzyme. The recombinant caspase-1 preferentially cleaves the substrates consisting of consensus sequence YVAD (e.g., YVAD-AFC and YVAD-pNA). The recombinant enzyme can also be used as a positive control in caspase assays or in determining the specificity of caspase substrates.

Recommended usage: 0.5-1 unit for fluorometric caspase assays and 2-4 units for colorimetric caspase assays. *Optimal working dilutions must be determined by end user.*

PRESENTATION: Lyophilized. Reconstitute in 25 μ L PBS containing 15% glycerol.

STORAGE/HANDLING: Maintain at -70°C in undiluted aliquots for 3-6 months. Avoid repeated freeze/thaw cycles.

Important Note: *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 μ L or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

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PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION

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