

## Product datasheet

# Recombinant mouse Caspase-1 protein ab52079

### Overview

<b>Product name</b>	Recombinant mouse Caspase-1 protein
<b>Protein length</b>	Full length protein

### Description

<b>Nature</b>	Recombinant
<b>Source</b>	Escherichia coli
<b>Amino Acid Sequence</b>	
<b>Accession</b>	<a href="#">P29452</a>
<b>Species</b>	Mouse
<b>Sequence</b>	<p>NK EDGTFPGLTG TLKFCPLEKA QKLWKENPSE            YPIMNTTTR TRLALICNT EFQHLSPRVG            AQVDLREMKL LLEDLGTVK VKENLTALEM            VKEVKEFAAC PEHKTSdstf LVFMSHGIQE            GICGTTYSNE VSDILKVDTI FQMMNTLKCP            SLKDKPKVII IQACRGEKQG VLLKDSVRD            SEEDFLDAI FEDDGIKKAH IEKDFIAFCS            STPDNVSWRH PVRGSLFIES LIKHMKEYAW            SCDLEDIFRK VRFSFEQPEF RLQMPTADRV            TLTKRFYLP GH</p>
<b>Amino acids</b>	119 to 402
<b>Tags</b>	His tag N-Terminus
<b>Additional sequence information</b>	Large (20 kD) and small (10 kD) subunits. The active caspase-1 is a heterotetramer consisting of two large and two small subunits. This protein contains about 284 aa without propeptide.

### Specifications

Our [Abpromise guarantee](#) covers the use of **ab52079** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Biological activity</b>	<p>SPECIFIC ACTIVITY: &gt;3500 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: pnitroanaline) 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</p>
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<b>Applications</b>	Functional Studies
<b>Form</b>	Lyophilised
<b>Additional notes</b>	The lyophilized caspase-1 is stable for 1 year at $-70^{\circ}\text{C}$ .

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## Preparation and Storage

<b>Stability and Storage</b>	Shipped at $4^{\circ}\text{C}$ . Upon delivery aliquot. Store at $-80^{\circ}\text{C}$ . Avoid freeze / thaw cycle. Constituents: PBS, 15% Glycerol This product is an active protein and may elicit a biological response in vivo, handle with caution.
<b>Reconstitution</b>	Reconstitute to 1 unit per $\mu\text{l}$ in PBS containing 15% glycerol. 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.

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## General Info

<b>Relevance</b>	Caspases are a family of cysteine proteases that are key mediators of programmed cell death or apoptosis. The precursor form of all caspases is composed of a prodomain, and large and small catalytic subunits. The active forms of caspases are generated by several stimuli including ligand-receptor interactions, growth factor deprivation and inhibitors of cellular functions. All known caspases require cleavage adjacent to aspartates to liberate one large and one small subunit, which associate into a2b2 tetramer to form the active enzyme. Caspase 1 is similar to the cell death gene CED3 of <i>C. elegans</i> and regulates multiple proinflammatory cytokines, including Interleukin 1b and interferon-gamma-inducing factor. Caspase 1 plays a role in down stream of Caspase 8 which is involved in Fas-mediated apoptosis.
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<b>Cellular localization</b>	Cytoplasmic
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**Please note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE"

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