

## Product datasheet

# Recombinant human Caspase-9 protein ab52203

[2 References](#) [1 Image](#)

### Description

<b>Product name</b>	Recombinant human Caspase-9 protein
<b>Biological activity</b>	<p>Specific activity: 400 units/mg.</p> <p>Unit definition: One unit of the recombinant caspase-9 is the enzyme activity that cleaves 1 nmol of the caspase substrate LEHD-pNA (pNA: pnitroaniline) 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>
<b>Purity</b>	> 90 % SDS-PAGE.
<b>Expression system</b>	Escherichia coli
<b>Accession</b>	<b><u>P55211</u></b>
<b>Protein length</b>	Full length protein
<b>Animal free</b>	No
<b>Nature</b>	Recombinant
<b>Species</b>	Human

### Specifications

Our **Abpromise guarantee** covers the use of **ab52203** in the following tested applications.

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

<b>Applications</b>	SDS-PAGE
<b>Form</b>	Lyophilized
<b>Additional notes</b>	<p>This product is manufactured by BioVision, an Abcam company and was previously called 1089 Caspase-9, human recombinant. 1089-25 is the same size as the 25 unit size of ab52203.</p> <p>UNIT DEFINITION: One unit of the recombinant Caspase 9 is the enzyme activity that cleaves 1 nmol of the caspase substrate LEHD-pNA (pNA: pnitroaniline) 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>

### Preparation and Storage

<b>Stability and Storage</b>	Shipped at 4°C. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle.
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Constituents: PBS, 15% Glycerol (glycerin, glycerine)

This product is an active protein and may elicit a biological response in vivo, handle with caution.

## Reconstitution

Reconstitute to 1 unit per  $\mu$ l in PBS containing 15% glycerol. Following reconstitution in PBS, the enzyme should be aliquoted and immediately stored at  $-70^{\circ}\text{C}$ .

## General Info

### Function

Involved in the activation cascade of caspases responsible for apoptosis execution. Binding of caspase-9 to Apaf-1 leads to activation of the protease which then cleaves and activates caspase-3. Proteolytically cleaves poly(ADP-ribose) polymerase (PARP). Isoform 2 lacks activity is an dominant-negative inhibitor of caspase-9.

### Tissue specificity

Ubiquitous, with highest expression in the heart, moderate expression in liver, skeletal muscle, and pancreas. Low levels in all other tissues. Within the heart, specifically expressed in myocytes.

### Sequence similarities

Belongs to the peptidase C14A family.  
Contains 1 CARD domain.

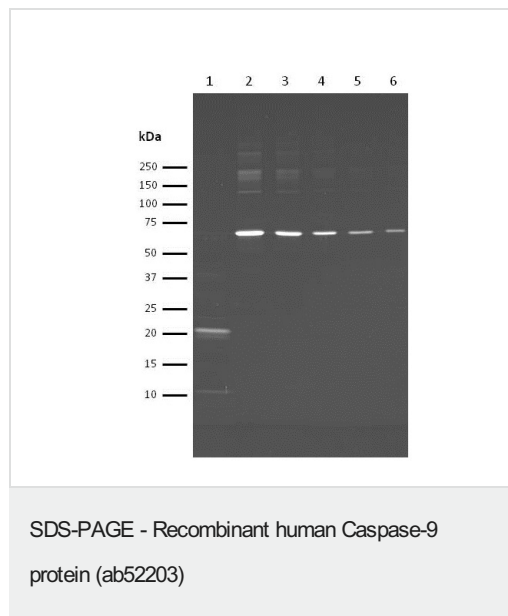
### Developmental stage

Expressed at low levels in fetal heart, at moderate levels in neonate heart, and at high levels in adult heart.

### Post-translational modifications

Cleavages at Asp-315 by granzyme B and at Asp-330 by caspase-3 generate the two active subunits. Caspase-8 and -10 can also be involved in these processing events.

## Images



Lane 1: Recombinant caspase 9 protein (Active) ab52203- 100 ng.  
Lane 2: BSA- 400 ng. Lane 3: BSA- 200 ng. Lane 4: BSA- 100 ng.  
Lane 5: BSA- 50 ng. Lane 6: BSA- 25 ng. SYPRO Ruby protein stain. Predicted band size: 46 kDa (precursor protein) and 35 kDa (p35 subunit) Observed Bands: 20 kDa and 11 kDa.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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