

Product datasheet

Recombinant human Cleaved Caspase-3 protein  
ab198447

1 References 2 Images

Description

Product name	Recombinant human Cleaved Caspase-3 protein		
Biological activity	Specific Activity: ≥ 6,784 pmol/min/μg		
Purity	> 99 % SDS-PAGE.		
Expression system	Escherichia coli		
Accession	<b>P42574</b>		
Protein length	Full length protein		
Animal free	No		
Nature	Recombinant		
Species	Human		
Sequence	MENTENSVDSKSIKNLEPKIIHGSESMDSGISLDNSYKMDY PEMGLCIII NNKNFHKSTGMTSRSGTDVDAANLRETFRNLYEVRNKN DLTREEIVELM RDVSKEDHSKRSSFVCVLLSHGEEGIIFGTNGPVDLKKITN FFRGDRCRS LTGKPKLFIQACRGTELDGCIETDSGVDDDMACHKIPVEA DFLYAYSTA PGYYSWRNSKDGSWFIQSLCAMLKQYADKLEFMHILTRVN RKVATEFESF SFDATFHAKKQIPCVSMLTKELYFYHHHHHHH		
Predicted molecular weight	32 kDa including tags		
Amino acids	1 to 277		
Tags	His tag C-Terminus		
Additional sequence information	Procaspase-3 is self-cleaved into two subunits, MW = 17 kDa and 13 kDa, to form the active heterotetrameric complex.		

Specifications

Our **Abpromise guarantee** covers the use of **ab198447** 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>	Functional Studies
	SDS-PAGE
<b>Form</b>	Liquid
<b>Additional notes</b>	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

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## Preparation and Storage

<b>Stability and Storage</b>	Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 0.63% Tris HCl, 0.64% Sodium chloride, 0.02% Potassium chloride, 0.04% Tween, 20% Glycerol (glycerin, glycerine), 0.05% (R*,R*)-1,4-Dimercaptobutan-2,3-diol This product is an active protein and may elicit a biological response in vivo, handle with caution.
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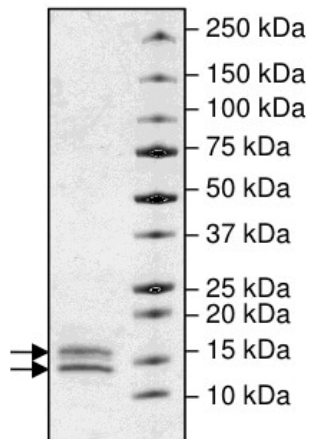
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## General Info

<b>Function</b>	Involved in the activation cascade of caspases responsible for apoptosis execution. At the onset of apoptosis it proteolytically cleaves poly(ADP-ribose) polymerase (PARP) at a '216-Asp-Gly-217' bond. Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Cleaves and activates caspase-6, -7 and -9. Involved in the cleavage of huntingtin. Triggers cell adhesion in sympathetic neurons through RET cleavage.
<b>Tissue specificity</b>	Highly expressed in lung, spleen, heart, liver and kidney. Moderate levels in brain and skeletal muscle, and low in testis. Also found in many cell lines, highest expression in cells of the immune system.
<b>Sequence similarities</b>	Belongs to the peptidase C14A family.
<b>Post-translational modifications</b>	Cleavage by granzyme B, caspase-6, caspase-8 and caspase-10 generates the two active subunits. Additional processing of the propeptides is likely due to the autocatalytic activity of the activated protease. Active heterodimers between the small subunit of caspase-7 protease and the large subunit of caspase-3 also occur and vice versa. S-nitrosylated on its catalytic site cysteine in unstimulated human cell lines and denitrosylated upon activation of the Fas apoptotic pathway, associated with an increase in intracellular caspase activity. Fas therefore activates caspase-3 not only by inducing the cleavage of the caspase zymogen to its active subunits, but also by stimulating the denitrosylation of its active site thiol.
<b>Cellular localization</b>	Cytoplasm.

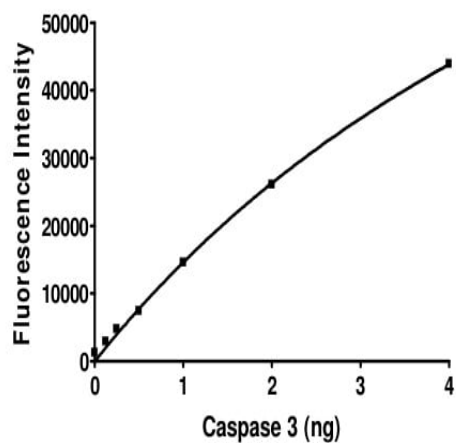
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## Images



4-20% SDS-PAGE analysis of ab198447 (2 µg) with Coomassie staining.

SDS-PAGE - Recombinant human Cleaved  
Caspase-3 protein (ab198447)



Example of specific activity of ab198447.

Functional Studies - Recombinant human Cleaved  
Caspase-3 protein (ab198447)

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

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