

## Recombinant Rat CASP3 Protein (His Tag)

**Catalog Number:** PDER100193

**Note:** *Centrifuge before opening to ensure complete recovery of vial contents.*

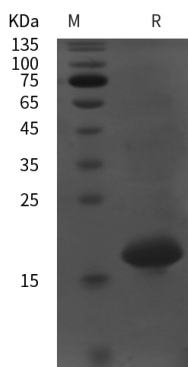
### Description

<b>Species</b>	Rat
<b>Source</b>	E.coli-derived Rat CASP3 protein Ser29-Asp175, with an N-terminal His
<b>Calculated MW</b>	16.1 kDa
<b>Observed MW</b>	20 kDa
<b>Accession</b>	P55213
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 10 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



SDS-PAGE analysis of Rat CASP3 proteins, 2 µg/lane of Recombinant Rat CASP3 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 20 kDa.

### Background

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Involved in the activation cascade of caspases responsible for apoptosis execution. At the onset of apoptosis, it proteolytically cleaves poly(ADP-ribose) polymerase PARP1 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. Triggers cell adhesion in sympathetic neurons through RET cleavage .Cleaves IL-1 beta between an Asp and an Ala, releasing the mature cytokine which is involved in a variety of inflammatory processes .Cleaves and inhibits serine/threonine-protein kinase AKT1 in response to oxidative stress. Acts as an inhibitor of type I interferon production during virus-induced apoptosis by mediating cleavage of antiviral proteins CGAS, IRF3 and MAVS, thereby preventing cytokine overproduction. Also involved in pyroptosis by mediating cleavage and activation of gasdermin-E (GSDME).Cleaves XRCC4 and phospholipid scramblase proteins XKR4, XKR8 and XKR9, leading to promote phosphatidylserine exposure on apoptotic cell surface.

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