



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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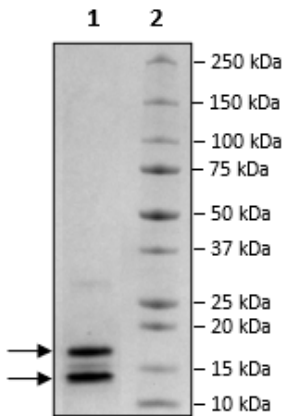
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## Product Information

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description:</b>          | Rat recombinant full length caspase-3 protease, amino acids 1-277 (end). This construct contains a C-terminal His-tag (6xHis). The protein was affinity purified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Background:</b>           | Caspase-3 is a cysteine-aspartic acid protease of the caspase family of proteins, belonging to group II (apoptotic executioner caspases). It plays a role in cell differentiation, tissue regeneration, apoptosis and neural development. It is synthesized as a zymogen, or procaspase, requiring cleavage by initiator caspases to trigger apoptosis. Its activity results in several cell changes, such as membrane blebbing, DNA fragmentation and the formation of apoptotic vesicles. Cell death via apoptosis can occur by intrinsic and extrinsic pathways. In response to DNA damage, metabolic or ER (endoplasmic reticulum) stress the intrinsic pathway can be activated. Caspase-3 can be inhibited by XIAP (X-linked IAP), cIAP1 and cIAP2. Deregulation of caspase activity can result in cancer, as many of the regulators of their activity are oncogenes or tumor suppressors. Caspase-3 has been used in the treatment of cancer, heart failure and neurogenerative disorders. Further understanding of the role of caspase-3 in disease will allow us to develop innovative and efficacious new therapies. |
| <b>Species:</b>              | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Construct:</b>            | Caspase-3 (Rat) (1-277(end)-His)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Concentration:</b>        | 1.03 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Expression System:</b>    | <i>E. coli</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Purity:</b>               | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Format:</b>               | Aqueous buffer solution.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Formulated In:</b>        | 40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 20% glycerol, and 3 mM DTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>MW:</b>                   | Small active subunit: 13 kDa; Large active subunit: 17 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Genbank Accession:</b>    | NM_012922.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Stability:</b>            | At least 6 months at -80°C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Storage:</b>              | -80°C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Instructions for Use:</b> | Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Assay Conditions:</b>     | Assay was done according to Caspase-3 Homogeneous Assay Kit (#80700) with various amounts of Caspase3 (Rat), His-Tag Recombinant (#102292).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Applications:</b>         | Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

Quality Control Data

4-20% SDS-PAGE Coomassie Staining



Caspase 3 (Rat) Activity

