



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## Elastase, Porcine pancreas

|                             |   |
|-----------------------------|---|
| <b>Cat. No.:</b>            | HY-P2974  |
| <b>CAS No.:</b>             | 39445-21-1  |
| <b>Molecular Formula:</b>   | C <sub>1135</sub> H <sub>1759</sub> N <sub>331</sub> O <sub>346</sub> S <sub>10</sub>   |
| <b>Molecular Weight:</b>    | 25898.13  |
| <b>Sequence Shortening:</b> | VVGGTEAQRNSWPSQISLQYRSGSSWAHTCGGTLIRQNWVMTAAHCVDRELTFRVWVGEHNL<br>NQNNNGTEQYVGVQKIWHYPYWNDDVAAGYDIALLRQAQSVTLNSYVQLGVLPRAGTILANNSP<br>CYITGWGLTRTNGQLAQLQAYLPTVDYAICSSSYWGSTVKNSMVCAGGNGVRSQCQGDS<br>GGPLHCLVNGQYAVHGVTSFVSRLGCNVRKPTVFTRVSAYISWINNVIASN (Disulfide bridge<br>: Cys30-Cys46; Cys127-Cys194; Cys158- Cys174; Cys184- Cys214) |
| <b>Target:</b>              | Elastase  |
| <b>Pathway:</b>             | Metabolic Enzyme/Protease   |
| <b>Storage:</b>             | Please store the product under the recommended conditions in the Certificate of Analysis.   |

Elastase from porcine pancreas

### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 50 mg/mL (1.93 mM; ultrasonic and adjust pH to 9 with NaOH)  
H<sub>2</sub>O : < 0.1 mg/mL (ultrasonic) (insoluble)

| Preparing Stock Solutions | Solvent       |  | Mass      |           |           |
|---------------------------|---------------|--|-----------|-----------|-----------|
|                           | Concentration |  | 1 mg      | 5 mg      | 10 mg     |
|                           | 1 mM          |  | 0.0386 mL | 0.1931 mL | 0.3861 mL |
|                           | 5 mM          |  | ---       | ---       | ---       |
|                           | 10 mM         |  | ---       | ---       | ---       |

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Elastase, Porcine pancreas (EC 3.2.1.35) is a single polypeptide chain of 240 amino acid residues, derived from pig pancreas. Elastase, Porcine pancreas is a serine protease that can hydrolyze proteins and polypeptide. Elastase from porcine pancreas can induce emphysema in hamsters<sup>[1][2][3]</sup>.

#### In Vitro

**In-Solution Digestion Protocol**

1. Resuspend Elastase in double-distilled water to a final concentration of 1 mg/mL. Store reconstituted Elastase at 4° for up to 2 weeks.
2. Resuspend the protein in reaction buffer.
3. Add Elastase to protein solution; mix. We recommended using enzyme:protein ratios of 1:20 to 1:100.
4. Incubate 2-18 hours at 37°.
5. Stop the reaction by adding 10% formic acid or TFA to a final concentration of 0.5% or by heating at 95° for 10 minutes.

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|                |  |
|----------------|--|
|                | MCE has not independently confirmed the accuracy of these methods. They are for reference only.  |
| <b>In Vivo</b> | Elastase from porcine pancreas induces emphysema in hamsters <sup>[3]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

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## REFERENCES

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- [1]. Shotton DM, et, al. Amino-acid sequence of porcine pancreatic elastase and its homologies with other serine proteinases. *Nature*. 1970 Feb 28;225(5235):802-6.
- [2]. Teshima T, et, al. A new class of heterocyclic serine protease inhibitors. Inhibition of human leukocyte elastase, porcine pancreatic elastase, cathepsin G, and bovine chymotrypsin A alpha with substituted benzoxazinones, quinazolines, and anthranilates. *J Biol Chem*. 1982 May 10;257(9):5085-91.
- [3]. Stone PJ, et, al. Induction and exacerbation of emphysema in hamsters with human neutrophil elastase inactivated reversibly by a peptide boronic acid. *Am Rev Respir Dis*. 1990 Jan;141(1):47-52.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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