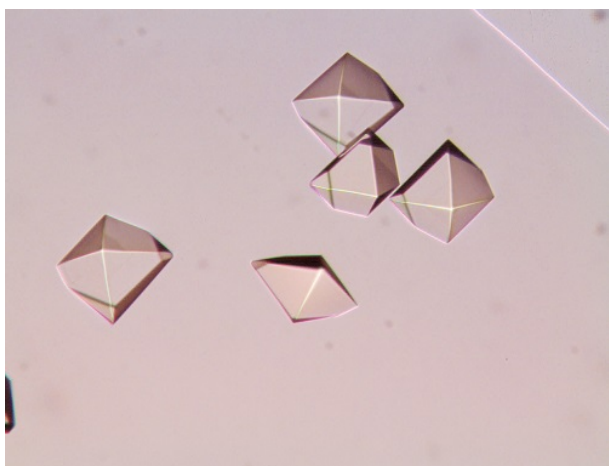




Proteinase K - lyophilised

Crystallization grade model protein
Endopeptidase K

Cat. No.	Amount
CO-404	100 mg



Proteinase K crystals grown in 1.2 M Ammonium Sulfate, 0.1 M Tris-HCl pH 8.0.

For *in vitro* use only!

Shipping: shipped at ambient temperature

Storage Conditions: store at 4 °C

Shelf Life: 12 months

Molecular Weight: 28.93 kDa

CAS#: 39450-01-6

EC number: 254-457-8

Form: lyophilised powder

Applications:

Proteinase K can be utilized as model protein in crystallization experiments and X-ray structure analysis.

Description:

Proteinase K is a fungal protease from *Tritirachium album*. It belongs to the subtilisin family with the classic catalytic triad of Asp³⁹-His⁶⁹-Ser²²⁴ at its active site^[1]. The enzyme is very stable over a wide pH-range, at various salt concentrations and is even active in SDS concentrations up to 0.5%.

Source: *Tritirachium album*

Usage:

Warm the Proteinase K powder to room temperature before opening. We recommend to resuspend the enzyme in 50 mM HEPES pH 7.0 to a final concentration of 10-20 mg/ml.

Crystals can be grown using the sitting drop or hanging drop vapor diffusion method.

Following crystallization conditions are suggested for Proteinase K crystal growth^[2,3]:

- 1.2 M Ammonium Sulfate, 0.1 M Tris-HCl pH 8.0
- 1.0 M NaNO₃, 100 mM Citrate Buffer pH 6.5

Selected References:

[1] Larson *et al.* (2009) High-resolution structure of proteinase K cocrystallized with digalacturonic acid. *Acta Cryst. F* **65**:192.

[2] Müller-Diekmann (2007) On the routine use of soft X-rays in macromolecular crystallography. Part IV. Efficient determination of anomalous substructures in biomacromolecules using longer X-ray wavelengths. *Acta Cryst. D* **63**:366.

[3] Wang *et al.* (2006) What can be done with a good crystal and an accurate beamline? *Acta Cryst. D* **62**:1475.