DATA SHEET

Jena Bioscience

# Proteinase K - Solid

recombinant from *Tritirachium album*
Endopeptidase K

| Cat. No. | Amount |
|---|---|
| EN-181-1G | 1 g |
| EN-181-10G | 10 x 1 g |

**Unit Definition:** One unit is defined as the amount of enzyme required to hydrolyze casein to produce 1 µmol tyrosine per minute at 37°C and pH 8.0.

**For general laboratory use.**

**Shipping:** shipped at ambient temperature

**Storage Conditions:** store at 4 °C

**Shelf Life:** 12 months

**Molecular Weight:** 28.9 kDa

**CAS#:** 39450-01-6

**EC number:** 254-457-8

**Purity:** free of RNase, DNases and Nickase

**Form:** amorphous powder

**Color:** white to off white

**Applications:**
Digestion of proteins during DNA and RNA preparation.

**Description:**
Proteinase K is a serine protease that exhibits a very broad cleavage specificity. The protein with a molecular weight of 28.9 kDa cleaves peptide bonds adjacent to the carboxylic group of aliphatic and aromatic amino acids. Proteinse K is not inactivated by metal chelating reagents such as EDTA or detergents such as SDS and is active over a wide range of pH (4 - 12.5).
Proteinase K is a highly active and stable protease with low cutting specificity. The enzyme belongs to the group of subtilisine-related serine proteases and is strongly inhibited by PMSF.
In presence of 0.5 - 1 % SDS Proteinase K inactivates DNases and RNases in eucaryotic and microbiological cell cultures. The use of Proteinase K during lysis of the cells allows the isolation of intact highly-molecular nucleic acids.

**Hazard pictograms:**

**Signal word:** Danger

**Hazard statements:**
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Precautionary statements:**
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**Activity:**
> 30 units/mg