

Proteinase K

from *Tritirachium album*

fon:
 +49 (0)731 - 3608 123
 fax:
 +49 (0)731 - 3608 962
 eMail:
info@genaxxon.com
 internet:
www.genaxxon.com

Product	Cat#	Package size
Proteinase K (from <i>Tritirachium album</i>)	M3036.0100	100mg
Proteinase K (from <i>Tritirachium album</i>)	M3036.0200	200mg
Proteinase K (from <i>Tritirachium album</i>)	M3036.0500	500mg
Proteinase K solution (20mg/mL)	M3037.0001	1mL
Proteinase K solution (20mg/mL)	M3037.0005	5 x 1mL

Description: Proteinase K is a non-specific serine protease having a very high specific activity. It has been used for isolation of mRNA, high molecular weight DNA and to inactivate other enzymatic activities. Proteinase K is active with or without the presence of SDS and EDTA.

Source: *Tritirachium album*.

Specific activity: > 30 units/mg

Form: Lyophilised powder

Unit definition: One unit is defined as the amount of enzyme that liberates Folin-positive amino acids and peptides, corresponding to 1 pmol tyrosine under assay conditions in 1 minute using haemoglobin as substrate (1).

Stability and storage: Proteinase K in its lyophilised form is stable at RT for short periods of time (up to 4 days). For long term storage, we recommend -20°C.

Preparation of Proteinase K solution: The standard concentration of a Proteinase K solution is 20mg/mL. For preparing this solution 20mg of Proteinase K is dissolved in 1mL pure (demineralised, DNase and proteinase-free water). The solution is stable at -20°C for 2 years, but can also be stored at 4°C for several months.

QUALITY CONTROL

16-hour incubation: a 50µL reaction solution containing 1µg of lambda-DNA and 1.8 units enzyme incubated for 16 hours at 37°C resulted in the same DNA band pattern after gel electrophoresis as compared to the pattern produced without enzyme.

Exonuclease activity: Incubation of 6 units of the enzyme for 4 hours at 37°C in 50µL assay buffer with 1g sonicated 3H DNA (3 x 10⁵ cpm/µg) released less than 0.2% of radioactivity.

Endonuclease activity: Incubation of 1.8 units of enzyme with 1µg PhiX174 RFI DNA in 50µL assay buffer for 4 hours at 37°C gave less than 1.5% conversion of RFI.

RNAse contamination: Incubation of 6 units of enzyme with 1 µg MS2 RNA in 50µL assay buffer for 4 hours at 37°C resulted in the same RNA band pattern after gel electrophoresis as compared to the pattern produced without the enzyme.

(1) Anson M.M (1939) J. Gen. Physiol., 22, 79.