Proteinase K

PRODUCT DESCRIPTION

Cat. no.: RP100B-RP103B
Version 01.2018

Product	**Proteinase K – Lyophilized powder, Molecular Biology Grade**
Cat. no.	RP100B, RP101B, RP102B, RP103B
Appearance	White lyophilized powder
Product characteristics	Proteinase K from *Parengyodontium album* (*Tritirachium album*) is a subtilisin-related serine protease. It is a broad spectrum endopeptidase with very high specific activity. It is widely used for digestion of proteins, including DNases and RNases, during nucleic acid preparations without compromising integrity of isolated DNA or RNA. Proteinase K is active under wide range of reaction conditions, including elevated temperatures and presence of SDS. This recombinant enzyme is expressed in *Pichia pastoris*, and undergoes extensive purification to yield the highest quality product.
Solubility in water	≥ 20 mg/ml
Stock solution preparation	50 mM Tris-HCl, pH = 7.8, 3 mM $CaCl_2$ for immediate use, or 50 mM Tris-HCl, pH = 7.8, 3 mM $CaCl_2$, 50% glycerol for long-term storage at -20˚C.
Activity	≥ 30 U/mg lyophilizate ≥ 40 U/mg protein One unit of Proteinase K hydrolyzes urea-denaturated hemoglobin producing color equivalent of 1 µmol tyrosine per 1 min at 37°C and pH = 7.5 (Folin & Ciocalteu's method), 1 U = 1 mAnsonU.
Protein content	≥ 70% Protein content is determined by measuring absorbance at 280 nm.
DNA content	≤ 10 pg/mg by qPCR
Exonucleases	1 µg of HindIII-digested λ DNA is incubated with 50 µg Proteinase K for 16 h at 37˚C. No DNA degradation is detectable.
Endonucleases	1 µg of pUC19 DNA is incubated with 40 µg Proteinase K for 16 h at 37˚C. No DNA degradation is detectable.
Ribonucleases	2 µg of rRNA from *E. coli* is incubated with 20 µg Proteinase K for 4 h at 37˚C. No RNA degradation is detectable.
Stability	The powder maintains full activity for at least 24 months from the release date.
Long-term storage	-20°C (as a powder, or as a stock solution in 50% glycerol, prepared as described above under "Stock solution preparation")
Shipping conditions	Ambient temperature

LIMITATION OF USE
This product has been developed by Blirt S.A for research purposes only and it is not suitable for any human, or animal, therapeutic, or diagnostic use.

WARRANTY
Blirt S.A. guarantees that the product, until its expiration date, conforms to all specifications described in Certificate of Analysis, provided the product is properly stored in its original container. If the product fails to meet these specifications prior to the expiration date, Blirt S.A. will replace it, free of charge. Blirt S.A. provides no other, additional warranties, including any other direct or indirect guarantees, regarding suitability, activity, the purpose of use, merchantability, or any other factors in relation its product.

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