Proteinase K NGS

version: 1.2022

Cat. No.: RP100N / RP101N / RP102N / RP103N

Product Specification

Product name	Proteinase K – Lyophilized powder, NGS Grade
Catalog numbers	RP100N, RP101N, RP102N, RP103N
Source	*Parengyodontium album (Tritirachium album)*
Host	*Komagataella phaffii (Pichia pastoris)*
Appearance	White lyophilized powder
Solubility in water	≥ 50 mg/ml
Activity	≥ 35 U/mg lyophilizate
Specific activity	≥ 45 U/mg protein
Unit definition	One unit of Proteinase K hydrolyzes urea-denatured 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%
DNA contamination	≤ 0.1 pg/mg
Storage conditions	-20°C
Shelf life	24 months when properly stored in unopened container.
Stability	Proteinase K Lyophilized powder maintains activity ≥ 35 U/mg and specific activity ≥ 45 U/mg for at least 24 months, stored in its original, unopened container.
Shipping conditions	Ambient temperature
The product is made in Poland	

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QC Assays

Activity assay: One unit of Proteinase K hydrolyzes urea-denatured hemoglobin producing color equivalent of 1 µmol tyrosine per 1 min at 37°C and pH 7.5 (Folin & Ciocalteu's method), 1U = 1 mAnsonU.

Exonuclease activity: Free of detectable exonucleases activity as judged by gel electrophoresis following incubation of 1 µg of HindIII-digested λ DNA with 50 µg of Proteinase K for 16 h at 37°C.

Endonuclease activity: Free of detectable endonucleases activity as judged by gel electrophoresis following incubation of 1 µg pUC19 DNA with 40 µg of Proteinase K for 16 h at 37°C.

RNase activity: Free of detectable RNase activities as judged by gel electrophoresis following incubation of 2 µg rRNA from *E. coli* with 20 µg of Proteinase K for 4 h at 37°C.

Protein content: Protein content is ≥ 70%, determined by measuring absorbance at 280 nm.

DNA content: DNA content is ≤ 0.1 pg/mg, which is determined by qPCR.