

Proteinase K Solution



version: 1.2021

Cat. No.: RP107B

Product Specification

Product name	Proteinase K – Solution, Molecular Biology Grade
Catalog numbers	RP107B
Source	<i>Parengyodontium album (Tritirachium album)</i>
Host	<i>Komagataella phaffii (Pichia pastoris)</i>
Appearance	Clear, colorless liquid
Concentration	≥ 20 mg/ml
Activity	≥ 800 U/ml
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.
DNA contamination	≤ 200 pg/ml
Bioburden	≤ 1 CFU/ml
Storage buffer	10 mM Tris-HCl, pH 7.5 1 mM (CH ₃ COO) ₂ Ca 50% glycerol
Storage conditions	-20°C, +4°C or room temperature. Do not store above 25°C. Avoid direct UV-radiation/sunlight.
Shelf life	24 months when properly stored in its original, unopened container.
Stability	Proteinase K Solution maintains activity ≥ 800 U/ml for at least 24 months, stored in its original, unopened container.
Shipping conditions	Ambient temperature
The product is made in Poland	

QC Assays

Protein concentration: Protein concentration is determined by measuring absorbance at 280 nm.

Activity assay: One unit of Proteinase K hydrolyzes urea-denatured hemoglobin producing color equivalent of 1 μ mol 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 μ g of HindIII-digested λ DNA with 50 μ g 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 μ g pUC19 DNA with 40 μ g 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 μ g rRNA from *E. coli* with 20 μ g of Proteinase K for 4 h at 37°C.

DNA content: DNA content is \leq 200 pg/ml, which is determined by qPCR.

Bioburden: Refers to quantitative enumeration of aerobic mesophilic bacteria and fungi.