

Proteinase K MBG

version: 1.2021

Cat. No.: RP100B / RP101B / RP102B / RP103B

Product name	Proteinase K – Lyophilized powder, Molecular Biology Grade
Catalog numbers	RP100B, RP101B, RP102B, RP103B
Solubility in water	≥ 20 mg/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.
Batch number	XXXXXXXXXX
Expiry date	XX.XXXX
Storage conditions	-20°C
Stability	Proteinase K Lyophilized powder maintains activity ≥ 30 U/mg and specific activity ≥ 40 U/mg for at least 24 months, stored in its original, unopened container.
Shipping conditions	Ambient temperature
Specification version	PS-RP100B-103B-01.2021
The product is made in Poland	

Quality Control

Parameter	Specification	Analysis
Appearance	White lyophilized powder	PASS
Solubility in water	≥ 20 mg/ml	PASS
Activity ¹	≥ 30 U/mg lyophilizate	PASS
Specific activity ¹	≥ 40 U/mg protein	PASS
Protein content ²	≥ 70%	PASS
DNA content ³	≤ 10 pg/mg	PASS
Exonuclease activity ⁴	None detected	PASS
Endonuclease activity ⁵	None detected	PASS
RNase activity ⁶	None detected	PASS

1. 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.
2. Protein content is ≥ 70%, determined by measuring absorbance at 280 nm.
3. DNA content is ≤ 10 pg/mg, which is determined by qPCR.
4. Exonuclease activity is 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.
5. Endonuclease activity is judged by gel electrophoresis following incubation of 1 μg pUC19 DNA with 40 μg of Proteinase K for 16 h at 37°C.
6. RNase activity is 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.

This product has been tested and shown to be in compliance with all specifications.

Name Surname

Jan Kowalski-Grabowski

Date

XX.XX.2021

QUALITY CONTROL

This document was generated electronically and is therefore valid without signature.

PRODUCT USE LIMITATION

This product of Blirt S.A. has been developed for research purposes only and it is not suitable for human and animal therapeutic or diagnostic use.

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