



CERTIFICATE OF ANALYSIS

Version 3.7
revised on May 28, 2018

PNGase F

PRODUCT NAME: PNGase F
PRODUCT NUMBERS: E-PNG01, E-PNG05, E-PNG01-20
KE-DG01, KE-DGMX

LOT NUMBER: 604.1B
EXPIRATION DATE: March 03, 2020
ASSAY DATE: April 20, 2018

SOURCE: *Elizabethkingia miricola*
FORMULATION: The enzyme is provided as a sterile-filtered solution in 20 mM Tris-HCl (pH 7.5)
STORAGE: 4°C (Do not freeze)

ACTIVITY: Activity¹ 5 U/ml (Specification: ≥ 5 U/ml)
Specific Activity² 25 U/mg (Specification: ≥ 25 U/mg)

CONTAMINATING ACTIVITY ASSAYS:

Protease Assay ³	Passed	(Specification "Passed")
Endoglycosidase assay ⁴		Passed (Specification "Passed")
Glycosidase activity ⁵		
Beta-Galactosidase	Passed	(Specification "Passed")
N-acetylglucosaminidase	Passed	(Specification "Passed")
Alpha-Galactosidase	Passed	(Specification "Passed")

Contaminant tested for:
Protease
Endo F
Beta-Galactosidase
N-acetylglucosaminidase
Alpha-Galactosidase

Substrate:
Denatured BSA
Egg white avidin
p-nitrophenyl-beta-D-galactopyranoside
p-nitrophenyl-beta-D-N-acetylglucosaminide
p-nitrophenyl-alpha-D-galactopyranoside

1. Defined as the amount of enzyme required to catalyze the release of N-linked oligosaccharides from 1 micromole of denatured RNase B in 1 minute at 37°C, pH 7.5. Cleavage is monitored by SDS-PAGE (cleaved RNase B migrates faster).
2. Protein concentration determined by Bradford method, using BSA as a standard.
3. For the protease assay, 10 µg of denatured BSA is incubated at 37°C for 24 hr with 2 ul of enzyme. SDS-PAGE analysis of the treated BSA shows no evidence of degradation.
4. For the Endo F assay, 2 µg of egg white avidin is incubate with 2 ul of enzyme for 1 week at 37°C. SDS-PAGE analysis of the treated avidin shows no evidence of cleavage.
5. Unexpected glycosidic activity is tested by incubating the enzyme for 24 hours at 37°C with the appropriate substrates; the detection limit of this assay is 5 µU/ml (IUB). A passing lot will have no detectable activity.

President - QA-Bio Inc
Authorized by Mike Gibson
May 28, 2018