



CERTIFICATE OF ANALYSIS

Version 3.7

revised on June 7, 2023

β (1-4) Galactosidase

PRODUCT NAME: β (1-4) Galactosidase
PRODUCT NUMBERS: E-BG07, E-BG07-200, E-BG07-20
KE-DG01, KE-DGMX

LOT NUMBER: 505.1C
EXPIRATION DATE: June 3, 2026
ASSAY DATE: May 27, 2023

SOURCE: recombinant gene from *Streptococcus pneumoniae* expressed in *E. Coli*
FORMULATION: 20 mM Tris-HCl, 25 mM NaCl pH 7.5, filter sterilized
STORAGE: 4°C (Do not freeze)

ACTIVITY: Activity¹ 3 U/ml (Specification: \geq 3 U/ml)
Specific Activity² 12.4 U/mg (Specification: \geq 6 U/mg)

CONTAMINATING ACTIVITY ASSAYS: Protease Assay³ Passed (Specification "Passed")

1. Defined as the amount of enzyme required to produce 1 μ mole of methylumbelliferone in 1 minute at 37°C, pH 5.0 from MU-NANA [2'-(4-methylumbelliferyl)-alpha-D-N-acetylneuraminic acid].
2. Protein concentration determined by Bradford method, using BSA as a standard.
3. For the protease assay, 10 μ g 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.

President - QA-Bio Inc
Authorized by Mike Gibson
June 7, 2023