

CERTIFICATE OF ANALYSIS

PRODUCT NAME: SIALIDASE A™-51 (recombinant from *Arthrobacter ureafaciens* expressed in *E. coli*)

PRODUCT CODE: GK80045

LOT NUMBER: DG32 018d

ENZYME FORMULATION: 20 mM Tris-HCl, 25 mM NaCl (pH 7.5)

STORAGE: 2 - 8° C

PACK SIZE: 1 Unit (200 µl)

MOLECULAR WEIGHT: ~51 kDa

EXPIRATION DATE: June 2020 (extended from prior exp. date based on re-assay); the enzyme is useable at least through this month.

REASSAY DATE: June 2019

QUALITY CONTROL

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|-----------------------------------|--------|-----------------------------------|
| 1. Enzyme Activity ¹ : | Passed | (Specification: ≥5 U/ml) |
| 2. Enzyme Specific Activity: | Passed | (Specification: ≥40 U/mg) |
| 3. Protease assay ² : | Passed | (Specification: “Not Detectable”) |
| 4. Contaminants ³ : | Passed | (Specification: ≤0.001%) |

Authorized Signature

1. One unit is defined as the amount of enzyme required to catalyze the release of 1 µmole of p-nitrophenol from pNP-α-d-N-acetylneuraminic acid per minute at pH 5.5 and 37°C.
2. No protease activity was detectable after incubation of the enzyme with 0.2 mg resorufin-labeled casein for ~18 hours at 37°C based on Schickaneder E, Hösel W, von der Eltz H, Geuß U. Casein-resorufin, a new substrate for a highly sensitive protease assay. Fresenius Z. Anal Chem. 1988 330:360.
3. The absence of exoglycosidase contaminants was confirmed by extended incubations with the corresponding pNP-glycosides: α-fucosidase, β-fucosidase, α-mannosidase, β-mannosidase, β-N-acetylhexosaminidase, α-N-acetylgalactosaminidase, α-galactosidase, β-galactosidase, α-glucosidase, β-glucosidase and β-xylosidase.