

CERTIFICATE OF ANALYSIS

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

PRODUCT CODE: GK80045

LOT NUMBER: DG32 018e

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

STORAGE: 2 - 8° C

ENZYME FILL SIZE: 1 Unit (200 µl)

MOLECULAR WEIGHT: ~51 kDa

COMPONENTS

Product Code & Name	Quantity	Lot No.	Expiry
Sialidase A-51 (1 Unit)	1 each	DG32 018e	May 2020
WS0049 5x Reaction Buffer (1 ml) [250 mM sodium phosphate (pH 6.0)]	1 each	W180247	Nov 2022

QUALITY CONTROL

- Enzyme Activity¹: Passed (Specification: ≥5 U/ml)
- Enzyme Specific Activity: Passed (Specification: ≥40 U/mg)
- Protease assay²: Passed (Specification: "Not Detectable")
- Contaminants³: Passed (Specification: ≤0.001%)

Authorized Signature

1. One unit is defined as the amount of enzyme required to catalyze the release of 1 μ mole 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.