CERTIFICATE OF ANALYSIS

PRODUCT NAME:	O-GLYCANASE™ (recombinant from *Streptococcus pneumoniae* expressed in *E. coli*)
PRODUCT CODE:	GK80090
LOT NUMBER:	DG53 047a
FORMULATION:	A sterile-filtered solution in 20 m*M* Tris-HCl, 25 m*M* NaCl (pH 7.5)
STORAGE:	Store enzyme at 2 - 8°C
PACK SIZE:	50 mU
FILL VOLUME:	40 µl
EXPIRATION:	April 2019

QUALITY CONTROL

1.	Activity[1]:	Passed	(Specification: ≥1.25 U/ml)
2.	Specific activity:	51.3 U/mg	
3.	Protease assay[2]:	Passed	(Specification: "Not Detectable")
4.	Contaminants[3]:	Passed	(Specification: ≤0.005%)

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Date: 2017.10.25 09:17:49 -07'00'

Authorized Signature

1. One unit is defined as the amount of enzyme required to catalyze the release of 1 µmole of p-nitrophenol from Gal β(1-3) GalNAc α-pNP 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, α-N-acetylgalactosaminidase, β-N-acetylhexosaminidase, α-galactosidase, β-galactosidase, α-glucosidase, β-glucosidase and β-xylosidase. The product was tested for contaminating sialidase by extended incubation with MU-NANA.

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