



CERTIFICATE OF ANALYSIS

PRODUCT NAME: GLYKO® $\alpha(1-3,4)$ FUCOSIDASE (Almond Meal)
PRODUCT CODE: GKX-5019
LOT NUMBER: P04C1701a
FORMULATION: Lyophilized from 50 mM sodium acetate, 3 mg/ml BSA, pH 5.0 (~150 μ g BSA per vial)
RECONSTITUTION: Reconstitute the enzyme in 1x Reaction Buffer for GKX-5019 (made from 5x stock supplied with the enzyme), or buffer of choice.
STORAGE: -20°C
PACK SIZE: 200 μ U **Note: 200 μ U is equal to 100 μ U as previously reported by Glyko, Inc.**
EXPIRATION: January 2008 (extended from prior exp. date based on re-assay)
RE-ASSAY DATE: January 2006

QUALITY CONTROL

- | | | |
|---|---------|-----------------------------------|
| 1. Specific activity ¹ : | Passed | (Specification: >1.5 U/mg) |
| 2. Protease assay ² : | Passed | (Specification: "Not Detectable") |
| 3. Contaminants ³ :
(except as noted below) | Passed | (Specification: $\leq 0.001\%$) |
| β -Fucosidase | 0.0028% | |

Authorized Signature

1. One unit of $\alpha(1-3,4)$ Fucosidase is defined as the amount of enzyme which will release 1 μ mole of fucose from lacto-N-fucopentaose II (Cat. No. GKAD-01007) per minute at pH 5.0 and 37°C. **Note: the enzyme is not active on p-nitrophenyl- α -L-fucopyranoside.**
2. No protease activity was detectable after incubation of the enzyme with 0.2 mg resorufin-labeled casein for ~18 hours at 37°C according to the method described in Twining, S.S. (1984) *Anal Biochem* **143**, 30-34.
3. The absence of exoglycosidase contaminants was confirmed by extended incubations with the corresponding pNP-glycosides: β -fucosidase, β -N-acetylhexosaminidase, α -N-acetylgalactosaminidase, α -mannosidase, β -mannosidase, α -galactosidase, β -galactosidase, α -glucosidase, β -glucosidase, β -xylosidase. The product was tested for contaminating sialidase by extended incubation with MU-NANA.