

# Selectin Biosciences Inc.

## $\alpha$ (1-2,3,6) Mannosidase

$\alpha$  (1-2,3,6) Mannosidase ( $\alpha$ -D-mannoside mannohydrolase EC 3.2.1.24) cleaves all  $\alpha$ (1-2,3,6)-linked mannose. The enzyme is prepared from Jack Bean.  $\alpha$ (1-2,3,6) mannosidase is useful for determining mannose linkages.

**Product Code:** GE 62

### Specifications

**Activity:**  $\geq 10$  U/ml 5 U/mg

**Storage:** Store at 4°C. Do not freeze.

**Formulation:** The enzyme is provided as a sterile solution in 150 mM sodium phosphate, 0.1 mM ZnCl<sub>2</sub> pH 7.5.

**Stability:** Stable at least 12 months when stored properly. Several days exposure to ambient temperatures will not reduce activity.

### Product Description

**Molecular weight:** Subunits of 44K and 66K Daltons.

**Specificity:** All  $\alpha$ (1-2,3,6)-linked mannose.

**Purity:** Each lot of  $\alpha$ (1-2,3,6) mannosidase is tested for contaminating substances by incubating the enzyme for 24 hours at 37°C with substrates indicated in the table below. No detectable activity is evident for any of these potential contaminants. The detection limit of this assay is 5  $\mu$ U/mL (IUB). For the protease assay, 10  $\mu$ g of denatured BSA is incubated for 24 hours with 2  $\mu$ l of enzyme. Analysis of the BSA band after SDS-PAGE should show no evidence of degradation.

Contaminant	Substrate
$\beta$ -N-acetylglucosaminidase	p-nitrophenyl- $\beta$ -D-N-acetylglucosaminide
$\alpha/\beta$ -Galactosidase	p-nitrophenyl- $\alpha/\beta$ -D-galactopyranoside

### Reagents

5X Reaction Buffer 5.0 - 250 mM sodium phosphate pH 5.0.

### Suggestions for Use

#### Procedure for De-mannosylation

1. Add up to 1  $\mu$ mole of oligosaccharide to tube
2. Add deionized water to a total of 15  $\mu$ L
3. Add 4  $\mu$ L 5X Reaction Buffer 5.0
4. Add 1  $\mu$ L  $\alpha$ (1-2,3,6) mannosidase
5. Incubate 10 minutes at 37°C

### References

1. Snaith, S.M., and G.A. Levvy. Purification and Properties of  $\alpha$ -D-Mannosidase from Jack-Bean meal. **Biochem. J. 110:** 633-670 (1968)

# Selectin Biosciences Inc.

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## **Mannose residues cleaved by GE62 $\alpha(1-2,3,6)$ Mannosidase (shown in bold)**

Man - Mannose; GlcNAc - N-acetylglucosamine

