

## Active Native Jack Bean $\alpha$ -(1-2,3,6) mannosidase

**Cat. No.**  $\alpha$ -(1-2,3,6) mannosidase-001J    **Lot. No.** (See product label)

### SPECIFICATION

|                         |   |
|-------------------------|---|
| <b>Product Overview</b> | Native $\alpha$ -(1-2,3,6) mannosidase from Jack Bean.  |
| <b>Species</b>          | Jack Bean   |
| <b>Description</b>      | $\alpha$ Mannosidase from Jack Bean cleaves $\alpha$ (1-2,3,6)-linked mannose.  |
| <b>Form</b>             | Sterile-filtered solution   |
| <b>EC</b>               | 3.2.1.24  |
| <b>Specificity</b>      | All $\alpha$ (1-2,3,6)-linked mannose   |
| <b>Contents</b>         | $\alpha$ (1-2,3,6) Mannosidase in 150 mM sodium phosphate, 0.1 mM ZnCl <sub>2</sub> pH 7.5. (pH 7.5) 200 $\mu$ L 5 $\times$ Reaction Buffer 5.0 (250 mM sodium phosphate, pH 5.0)                   |
| <b>Bio-activity</b>     | Specific Activity: > 3 U/mg Activity: > 10 U/mL   |
| <b>Molecular Mass</b>   | Two polypeptides of 64 and 44 kDa   |
| <b>Suggested usage</b>  | 1. Add up to 1 nmol of oligosaccharide. 2. Add deionized water to 15 $\mu$ L. 3. Add 4 $\mu$ L 5 $\times$ Reaction Buffer 5.0. 4. Add 1 $\mu$ L of enzyme 5. Incubate ten minutes at 37 centigrade. |
| <b>Unit Definition</b>  | One unit of $\alpha$ Mannosidase is defined as the amount of enzyme required to hydrolyze   |

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|-------------------------|--|
|                         | 1 $\mu$ mole of p-nitrophenyl- $\alpha$ -p-mannoside to p-nitrophenol in 1 minute at pH 5.0 and 37 centigrade.   |
| <b>pH optimum</b>       | 5  |
| <b>Purity</b>           | $\alpha$ -Mannosidase is tested for contaminating protease as follows: 10 $\mu$ g of denatured BSA is incubated at 37 centigrade for 24 hours with 2 $\mu$ L of enzyme. SDS-PAGE analysis of the treated BSA shows no evidence of degradation. Enzymes purified from native sources are tested for contaminating exoglycosidases. The absence of exoglycosidase contaminants is confirmed by extended incubations with the corresponding pNP-glycosides. |
| <b>Applications</b>     | This enzyme is often used in conjunction with Core $\alpha$ (1-6) Mannosidase if a noncleavable core $\alpha$ (1-6) mannose is present on the substrate.   |
| <b>Stability</b>        | Stable at least 12 months when stored properly. Several days exposure to ambient temperatures will not reduce activity.  |
| <b>Storage</b>          | Store enzyme at 4 centigrade. Do not freeze.   |
| <b>Storage Buffer</b>   | The enzyme is provided as a sterile-filtered solution in 20 mM Tris pH 7.5, 50 mM NaCl, 0.1 mM zinc chloride.  |
| <b>GENE INFORMATION</b> |  |
| <b>Synonyms</b>         | $\alpha$ -D-mannosidase; p-nitrophenyl- $\alpha$ -mannosidase; $\alpha$ -D-mannopyranosidase; $\alpha$ mannosidase; exo- $\alpha$ -mannosidase; Alpha-(1-2,3,6)-Mannosidase; Alpha-D-Mannoside Mannohydrolase  |

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