

**MANNAN (1,4- $\beta$ -D-MANNAN) (Lot 131001a)**

**P-MANCB**  
**CAS NO.** 9036-88-8

**10/15**

**PROPERTIES:**

**Protein Content:** ~ 0.3% (Nitrogen x 5.7)

**Physical Description:** Odourless, white powder.

**PREPARATION:**

This mannan is prepared by hydrolysis of carob galactomannan with pure *Cellvibrio japonicus*  $\beta$ -mannanase (with heat inactivation), followed by treatment with guar-seed  $\alpha$ -galactosidase to remove essentially all of the  $\alpha$ -linked D-galactosyl residues. The mannan which forms precipitates from solution and is recovered by centrifugation and washed with cold water. The mannan is then re-dissolved in 5% sodium hydroxide and reduced with sodium borohydride. On neutralisation with acetic acid, the mannan precipitates from solution and is washed with ethanol and recovered.

This mannan is a useful substrate for the measurement of 1,4- $\beta$ -D-mannanase assay using a reducing sugar method.

**SOLUBILITY:**

Insoluble in water. Can be dissolved at 20 mg/mL in 5% w/v sodium hydroxide.

On neutralisation with 50% acetic acid, the mannan precipitates from solution as a very fine colloidal suspension. The suspension should be mixed gently by swirling the container by hand before removing aliquots for use in enzyme assays.

**SUGAR COMPOSITION:**

**Mannose:** 98%;  
**Galactose:** ~ 1%.