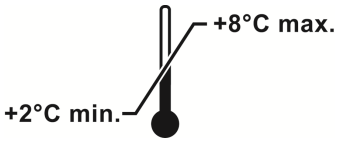
CAZyme™ CthManA
Technical Specifications

Catalog No. 30610-1 2 mg (0.2 ml)
Lot No.



Store at 4ºC. Do not re-freeze.
For *In Vitro* Research Use Only.
Not for Drug or Diagnostic use. Not for use in humans or animals.

C5•6 Technologies, Inc.

Product Description	CAZyme CthManA, thermostable, recombinant expressed in *E. coli* cells, cloned from *Clostridium thermocellum*. 10 mg/ml. MW = 56 kDa
Purity	≥90% pure on Coomassie stained SDS-PAGE.
Recommended Reaction Conditions	β- Mannanase A is active between pH 5.0 and 8.0 at 70°C. Optimum pH is 6.0 and optimum temperature is 70°C.
Specific Activity	153 units/mg.
Activity Determination	One β- Mannanase unit will produce 1 micromole of reducing sugar per minute at 70°C from a 1% solution of low viscosity carob galactomannan (Megazyme, P-GALML) in 50 mM sodium acetate at pH 5.8. Assay method available upon request.
Endoglucanase Activities	β- Mannanase A possesses *endo*-mannanase activity when assayed using insoluble AZCL-linked substrates. Assay method available upon request.
Exoglucanase Activities	β- Mannanase A does not possess any *exo*-activities. Assay method available upon request.
Protein Concentration	10 mg/ml total protein as measured using the Bradford protein assay with BSA as standard.
Stability	Store at 4°C. If properly stored at 4°C, this product is guaranteed for 6 months from date of purchase.
Storage Buffer	50 mM Tris-HCl, pH 7.5, 100 mM NaCl, 25% glycerol.

Note: This enzyme is shipped frozen but should be stored at 4ºC. Additional freeze/thaw cycles will result in decreased activity.

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MYSLPVDVEAEDCTLGNGAVVTTNVYGTQYPGYSGDGFVWVANSGTITLEVTIPENGMYE
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YEYDGEIPDINYG
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Length: 493aa
Theoretical pI: 4.40
Theoretical MW: 56,563 Da
PFAM Structure: CBM6 GH26
Activity: endo-mannanase
Typical Specific Activity: 153 u/mg
Leader: (-)
Dockerin: (-)
Histag: (+)

Figure 1. Features and sequence of recombinant CAZyme CthManA (1).

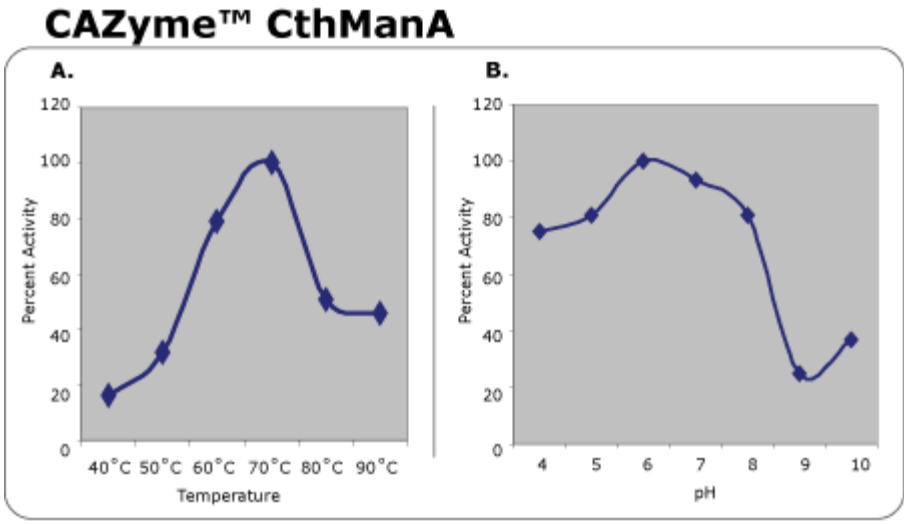

Figure 2. Temperature and pH tolerance of CAZyme CthManA. Assay conditions available upon request.

1. Halstead, J. R., Vercoe, P. E., Gilbert, H., Davidson, K., and Hazlewood, G. P. (1999) A family 26 mannanase produced by Clostridium thermocellum as a component of the cellulosome contains a domain which is conserved in mannanases from anaerobic fungi. *Microbiolog*. **145**, 3101.