

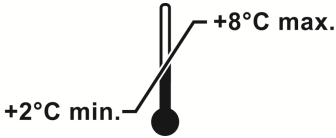
CAZyme™ CthXynA



C5•6 Technologies, Inc.

Technical Specifications

Catalog No. 30533-1	2 mg (0.2 ml)
Lot No.	



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

Product Description	CAZyme CthXynA, thermostable, recombinant expressed in <i>E. coli</i> cells, cloned from <i>Clostridium thermocellum</i> . 10 mg/ml. MW = 37 kDa
Purity	≥90% pure on Coomassie stained SDS-PAGE.
Recommended Reaction Conditions	CAZyme CthXynA is active between pH 6.0 and 8.0 at 70°C. Optimum pH is 6.0 and optimum temperature is 70°C.
Specific Activity	915 units/mg.
Activity Determination	One xylanase unit will produce 1 micromole of reducing sugar per minute at 70°C from a 2% solution of birchwood xylan (Sigma, X-0502) in 50 mM sodium acetate, pH 5.8. Assay method available upon request.
Endoglucanase Activities	CAZyme CthXynA possesses <i>endo</i> -xylanase and arabinoxylanase activities. Assay methods available upon request.
Exoglucanase Activities	CAZyme CthXynA does not possess any exoglucanase activities. Assay methods 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 4°C. Additional freeze/thaw cycles will result in decreased activity.

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1

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Length: 342aa
Theoretical pI: 6.61
Theoretical MW: 37,350 Da
PFAM Structure: GH11 CBM6
Activity: endo-xylanase
Typical Specific Activity: 915 u/mg
Leader: (-)
Dockerin: (-)
Histag: (+)
Esterase: (-)

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

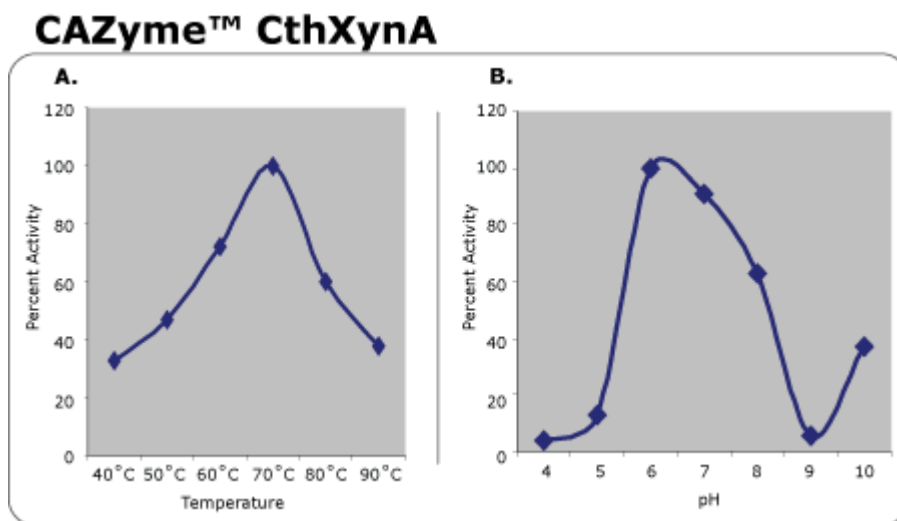


Figure 2. Temperature and pH tolerance of CAZyme CthXynA. Assay conditions available upon request.

1. Hayashi, H., Takehara, M., Hattori, T., Kimura, T., Karita, S., Sakka, K., and Ohmiya, K. (1999) Nucleotide sequences of two contiguous and highly homologous xylanase genes xynA and xynB and characterization of XynA from *Clostridium thermocellum*. *Appl Microbiol Biotechnol* **51**, 348.