

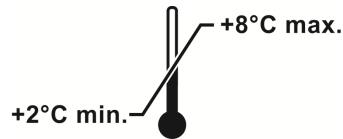
CAZyme™ CthXynZ



C5•6 Technologies, Inc.

Technical Specifications

Catalog No. 30535-1 2 mg (0.2 ml)
Lot No.



Store at 4°C. Do not freeze.

For *In Vitro* Research Use Only.

Not for Drug or Diagnostic use. Not for use in humans or animals.

Product Description	CAZyme CthXynZ, 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 CthXynZ is active between pH 6.0 and 7.0 at 70°C.
Specific Activity	100 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 CthXynZ possesses <i>endo</i> -xylanase, arabinoxylanase and β-glucanase activities. Assay methods available upon request.
Exoglucanase Activities	CAZyme CthXynZ possesses exocellulase, β-xylosidase and β-glucosidase 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.

C5•6 Technologies 2905 Parmenter St, Middleton, WI 53562 USA
(608) 836.3587
info@c56technologies.com www.c56technologies.com

1

FOR RESEARCH USE ONLY. NOT FOR HUMAN OR DIAGNOSTIC USE

```

MSGNALRDYAEARGIKIGTCVNYPPFYNNSDPTYNSILQREFSMVVCENEMKFDALQPRQN
VFDFSKGDQLLAFEAERNGMQMRGHTLIWHNQNP SWLTNGNWNRRD SLLAVMKNHITTVMT
YK GKIVEWDVANECMDDSGNGLRSSIWRNVIGQDYLDYAFRYAREADPDALLFYNDYNIE
DLGPKSNAVFNMIKSMKERGVPIDGVGFQCHFINGMSPEYLASIDQNIKRYAEIGVIVSF
TEIDIRIPOSENPATAFQVQANNYKELMKICLANPNCNTFVMWGFTDKYTWIPGTFPGYG
NPLIYDSNYPKPAYNAIKEALMGY

```

Length: 325aa
Theoretical pI: 5.52
Theoretical MW: 37,204 Da
PFAM Structure: GH10
Activity: exo-xylanase
Typical Specific Activity: 22 u/mg
Leader: (-)
Dockerin: (-)
Histag: (-)
CBM6: (-)

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

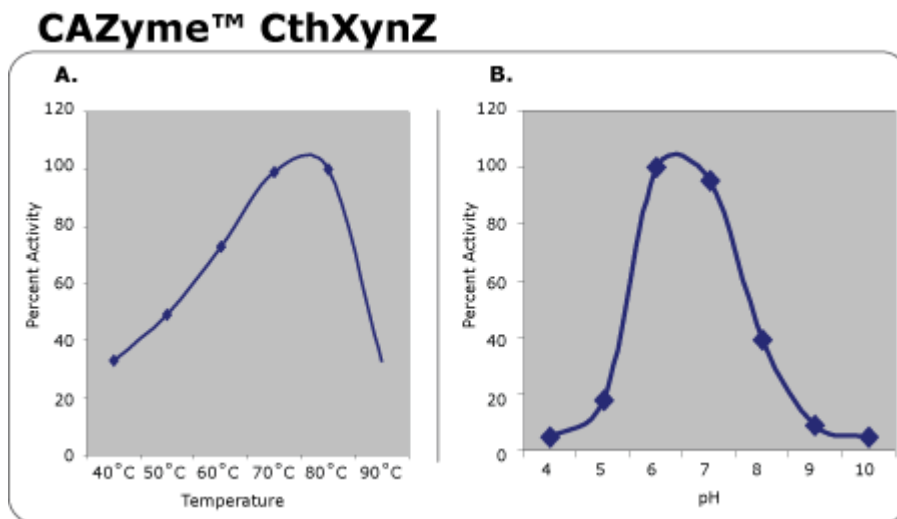


Figure 2. Temperature and pH tolerance of CAZyme CthXynZ. Assay conditions available upon request.

1. Herbers, K., Wilke, I., and Sonnewald, U. (1995) A Thermostable Xylanase from *Clostridium thermocellum* Expressed at High levels in the Apoplast of Transgenic Tobacco Has No Detrimental Effects and is Easily Purified. *Nature Biotechnology*. **13**, 63.