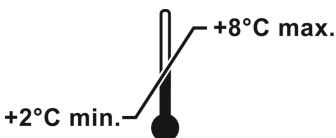


# CAZyme™ CthCeID



C5•6 Technologies, Inc.

## Technical Specifications

Catalog No. 30554-1	2 mg (0.2 ml)
Lot No.	
	
<b>Store at 4°C. Do not re-freeze.</b>	
For <i>In Vitro</i> Research Use Only.	
Not for Drug or Diagnostic use. Not for use in humans or animals.	

<b>Product Description</b>	CAZyme CthCeID, thermostable, recombinant expressed in <i>E. coli</i> cells, cloned from <i>Clostridium thermoCELLUM</i> . 10 mg/ml. MW = 60 kDa
<b>Purity</b>	≥90% pure on Coomassie stained SDS-PAGE.
<b>Recommended Reaction Conditions</b>	CAZyme CthCeID is active between pH 6.0 and 7.0 at 70°C. Optimum pH is between 6.0 - 7.0 and optimum temperature is 70°C.
<b>Specific Activity</b>	967 units/mg.
<b>Activity Determination</b>	One cellulase unit will produce 1 micromole of reducing sugar per minute at 70°C from a 1% solution of β-glucan (Megazyme, P-BGBL) in 50 mM sodium acetate at pH 5.8. Assay method available upon request.
<b>Endoglucanase Activities</b>	CAZyme CthCeID possesses <i>endo</i> -cellulase and β-glucanase activities when assayed using insoluble AZCL-linked substrates. Assay method available upon request.
<b>Exoglucanase Activities</b>	CAZyme CthCeID possess <i>exo</i> -cellulase activity. Assay method available upon request.
<b>Protein Concentration</b>	10 mg/ml total protein as measured using the Bradford protein assay with BSA as standard.
<b>Stability</b>	Store at 4°C. If properly stored at 4°C, this product is guaranteed for 6 months from date of purchase.
<b>Storage Buffer</b>	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](mailto:info@c56technologies.com) [www.c56technologies.com](http://www.c56technologies.com)

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FOR RESEARCH USE ONLY. NOT FOR HUMAN OR DIAGNOSTIC USE

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**Length:** 540aa  
**Theoretical pI:** 5.21  
**Theoretical MW:** 60,494 Da  
**PFAM Structure:** GH9  
**Activity:** endo-cellulase  
**Typical Specific Activity:** 967 u/mg  
**Leader:** (-)  
**Dockerin:** (-)  
**Histag:** (-)

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

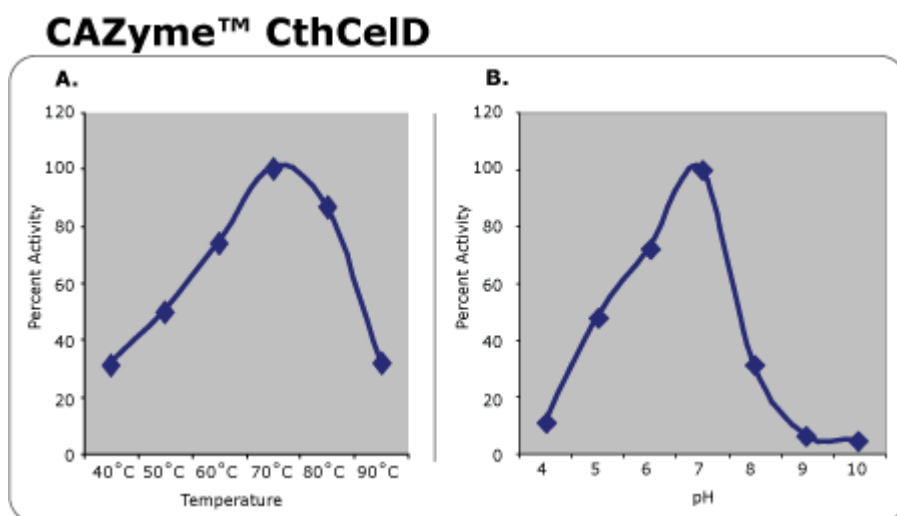


Figure 2. Temperature and pH tolerance of CAZyme CthCelD. Assay conditions available upon request.

1. Chauvaux, S., Beguin, P., Aubert, J.-P., Bhat, K. M., Gow, L. A., Wood, T. M., and Bairoch (1990) Calcium-binding affinity and calcium-enhanced activity of *Clostridium thermocellum* endoglucanase D. *Biochem. J.* **265**, 261.