

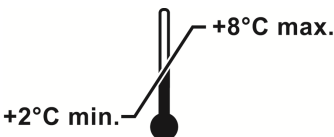
# CAZyme™ CthCelR



C5•6 Technologies, Inc.

## Technical Specifications

Catalog No. 30561-1	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.

<b>Product Description</b>	CAZyme CthCelR, thermostable, recombinant expressed in <i>E. coli</i> cells, cloned from <i>Clostridium thermocellum</i> . 10 mg/ml. MW = 79 kDa
<b>Purity</b>	≥90% pure on Coomassie stained SDS-PAGE.
<b>Recommended Reaction Conditions</b>	CAZyme CthCelR is active between pH 6.0 and 8.0 at 70°C.
<b>Specific Activity</b>	22 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>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.

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**Length:** 710aa  
**Theoretical pI:** 5.33  
**Theoretical MW:** 79,336 Da  
**PFAM Structure:** GH9 CBM3  
**Activity:** exo-cellulase  
**Typical Specific Activity:** 22 u/mg  
**Leader:** (-)  
**Dockerin:** (-)  
**Histag:** (-)

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

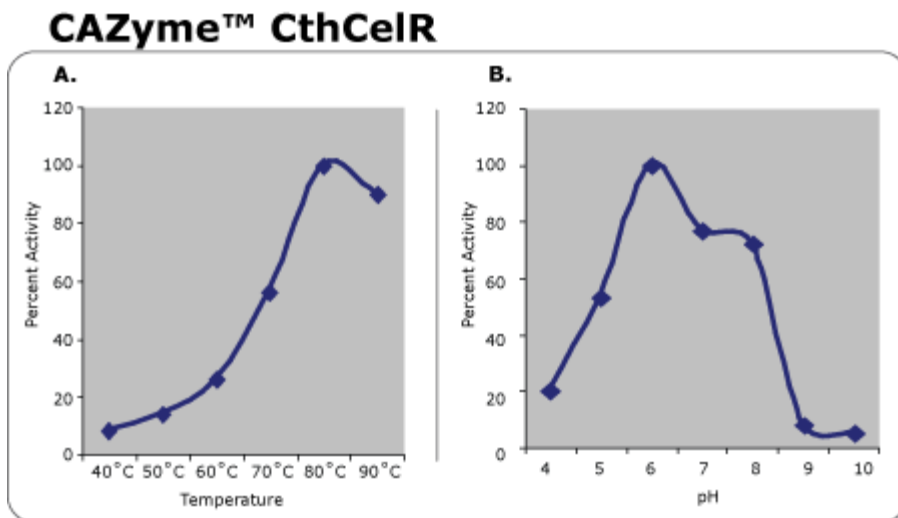


Figure 2. Temperature and pH tolerance of CAZyme CthCelR. Assay conditions available upon request.

1. Zverlov, V. V., Schantz, N., and Schwarz, W. H. (2005) A major new component in the cellulosome of *Clostridium thermocellum* is a processive endo- $\beta$ -1,4-glucanase producing cellotetraose. *FEMS Microbiology Letters*. 249, 353.