

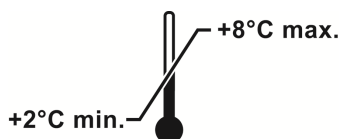
CAZyme™ CthCell



C5•6 Technologies, Inc.

Technical Specifications

Catalog No. 30557-1 2 mg (0.2 ml)
Lot No. 3187



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 CthCell, thermostable, recombinant expressed in <i>E. coli</i> cells, cloned from <i>Clostridium thermocellum</i> . 10 mg/ml. MW = 99 kDa
Purity	≥90% pure on Coomassie stained SDS-PAGE.
Recommended Reaction Conditions	CAZyme CthCell is active between pH 5.0 and 7.0 at 70°C. Optimum pH is 5.8 and optimum temperature is 70°C - 80°C.
Specific Activity	58 units/mg.
Activity Determination	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.
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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Length: 887aa
Theoretical pI: 5.44
Theoretical MW: 98,531 Da
PFAM Structure: GH9 CBM3
Activity: exo-cellulase
Typical Specific Activity: 58 u/mg
Leader: (-)
Dockerin: (-)
Histag: (-)

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

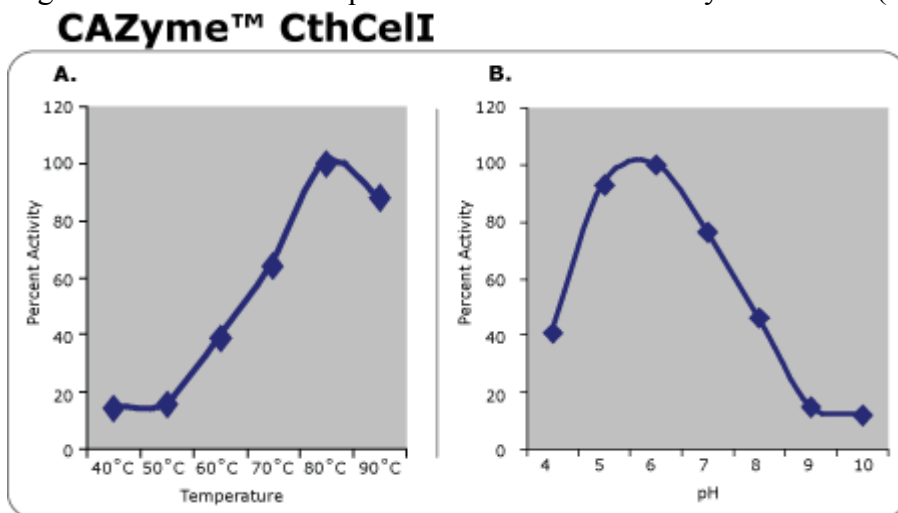


Figure 2. Temperature and pH tolerance of CAZyme CthCell. Assay conditions available upon request.

1. Gilad, R., Rabinovich, L., Yaron, S., Bayer, E. A., Lamed, R., Gilbert, H. J., and Shoham, Y. (2003) Cell, a Noncellulosomal Family 9 Enzyme from *Clostridium thermocellum*, Is a Processive Endoglucanase That Degrades Crystalline Cellulose. *Journal of Bacteriology*. **185**,. 391.