

CAZyme™ CthCelC*

Technical Specifications

(*formerly available as CAZyme Cellulase 2)

Catalog No. 31552-1 2 mg (0.1 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.



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| Product Description | CAZyme CthCelC, thermostable, recombinant expressed in <i>E. coli</i> , cloned from <i>Clostridium thermocellum</i> . 20 mg/ml MW = 41 kDa |
| Purity | ≥90% pure on Coomassie stained SDS-PAGE. |
| Recommended Reaction Conditions | CAZyme CthCelC is active between pH 5.0 and 7.0 at 70°C. |
| Specific Activity | 50 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. |
| Endoglucanase Activities | CAZyme CthCelC possesses <i>endo</i> -cellulase and β-glucanase activities when assayed using insoluble AZCL-linked substrates. Assay method available upon request. |
| Exoglucanase Activities | CAZyme CthCelC does possess <i>exo</i> -cellulase and cellobiohydrolase (β-glucosidase) activities. Assay method available upon request. |
| Protein Concentration | 20 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.

Warranty

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Length: 343aa

Theoretical pI: 5.55

Theoretical MW: 40,905 Da

PFAM Structure: GH5

Activity: endo-cellulase

Typical Specific Activity: 15-75 U/mg

1. Petre, D. Millet, J., Longin, R., Beguin, P., Girard, H. and Aubert, J.-P. (1986)
Purification and properties of the endoglucanase C of *Clostridium thermocellum* produced in *Escherichia coli*. *Biochimie*, **68**, 687

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

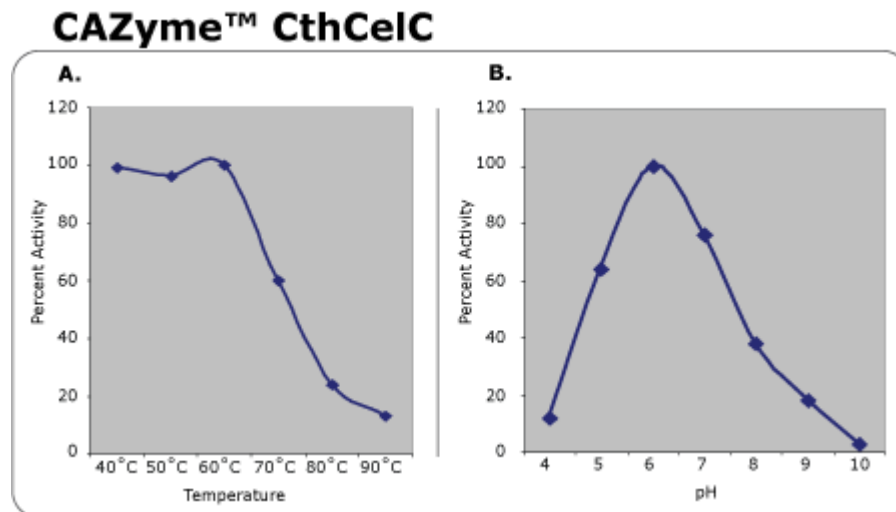


Figure 2. Temperature and pH tolerance of CAZyme CthCelC. Assay conditions available upon request.