

CAZyme™ Expansin
Technical Specifications



Catalog No. 30502-1 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.

Lucigen Corporation
 2120 W. Greenview Dr.
 Middleton, WI 53562 USA
 Tel. 608-831-9011
 Fax. 608-831-9012
 Web www.lucigen.com
 Email lucigen@lucigen.com

Product Description	CAZyme Expansin, recombinant expressed in <i>E. coli</i> cells, cloned from <i>Bacillus subtilis</i> . 10 mg/ml. MW = 24 kDa.
Purity	≥ 90% pure on Coomassie stained SDS-PAGE.
Function of expansin	Expansin is the <i>yoaJ</i> gene product (Bsu18630) also known as EXLX1. Expansin help cellulases gain access to glucan chains and enhances accessibility of cellulose by weakening the intermolecular bonds between plant wall polysaccharides
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.
Reference	Eun Sil Kim, Hee Jin Lee, Won-Gi Bang, In-Geol Choi, and Kyoung Heon Kim (2009) Functional Characterization of a Bacterial Expansin From <i>Bacillus subtilis</i> for Enhanced Enzymatic Hydrolysis of Cellulose , <i>Biotechnology and Bioengineering</i> . 102 : 1342-1353.

Note: This protein is shipped frozen but should be stored at 4°C. Additional freeze/thaw cycles will result in decreased activity.

Warranty

Lucigen warrants that its products will conform to the standards stated in its product specification sheets in effect at the time of shipment. Lucigen will replace, free of charge, any product that does not conform to the specifications. This warranty limits Lucigen’s liability only to the replacement of the product. THIS WARRANTY IS EXCLUSIVE, AND LUCIGEN MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The stated express warranties, and the remedy provided for breach thereof, are in lieu of all other liability or obligations of Lucigen for any damages whatsoever arising out of or in connection with the delivery, use, performance, or the inability to use any of its products. IN NO EVENT SHALL LUCIGEN BE LIABLE UNDER ANY LEGAL THEORY (INCLUDING BUT NOT LIMITED TO CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT, OR WARRANTY OF ANY KIND) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXEMPLARY DAMAGES (INCLUDING BUT NOT LIMITED TO LOST PROFITS). Without limiting the effect of the preceding sentence, Lucigen’s maximum liability, if any, shall not exceed the purchase price paid by buyer for the product.

MAYDDLHEGYATYTGSGYSGGAFLLDPIPSDMEITAINPADLNYGGVKAALAGSYLEVEG
PKGKTTVYVTDLYPEGARGALDLS PNAFRKIGNMKDGTKINIKWRVVKAPITGNFTYRIKE
GSSRWAAIQVRNHKYPVMKMEYEKDGKWINMEKMDYNHFVSTNLGTGSLKVRMTDIRGK
VVKDTIPKLPESGTSKAYTVPGHVQFPEHHHHH

Length: 214aa

Theoretical pI: 9.01

Theoretical MW: 23,888

1. Kim, E. S., Lee, H. J., Bang, W.-G., Choi, I. G., and Kim, K. H. (2009) Functional Characterization of a Bacterial Expansin From *Bacillus subtilis* for Enhanced Enzymatic Hydrolysis of Cellulose , *Biotechnology and Bioengineering*. **102**: 1342-1353.

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