



## FERULOYL ESTERASE from *Clostridium thermocellum* (Lot 100801d)

### Recombinant

#### E-FAEZCT

04/13

Feruloyl esterase domain of XynZ (Xyn10A) from *Clostridium thermocellum*  
(EC 3.1.1.73) 4-hydroxy-3-methoxycinnamoyl-sugar hydrolase  
CAZy: CE Family I

### PROPERTIES

#### 1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 29,000)
- Single major band on isoelectric focusing (pI ~ 6.8)

#### 2. SPECIFIC ACTIVITY:

**0.5 U/mg protein (on ethyl-ferulate) at pH 6.0 and 50°C.**  
~ 28 U/mg protein (on FAXX) at pH 6.0 and 60°C.\*

**One Unit** of feruloyl esterase activity is defined as the amount of enzyme required to release one  $\mu$ mole of ferulic acid from ethyl-ferulate per minute at pH 6.0 and 50°C under the following conditions:

MOPS buffer, pH 6.0	100 mM
Ethyl-ferulate	0.39 mM

#### 3. PHYSICOCHEMICAL PROPERTIES:

pH Optima:	4.0 - 7.0*
Temperature Optima:	50 - 60°C*
Temperature Stability:	up to 70°C*

#### 4. STORAGE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension in 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in sodium phosphate buffer (100 mM), pH 6.0 containing 1.0 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

#### 5. REFERENCES:

Blum, D.L., Kateava, I.A., Li, X.L, Chen, H. & Ljungdahl, L.G. (2000) Feruloyl Esterase Activity of the *Clostridium thermocellum* Cellulosome Can Be Attributed to Previously Unknown Domains of XynY and XynZ. *Journal of Bacteriology* **182(5)**:1346-1351

\* Literature values