



FERULOYL ESTERASE from *Clostridium thermocellum* (Lot 150801a)

Recombinant

E-FAEZCT

10/20

Feruloyl esterase domain of XynZ (Xyn10A) from *Clostridium thermocellum*
(EC 3.1.1.73) 4-hydroxy-3-methoxycinnamoyl-sugar hydrolase
CAZy Family: CE1

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 μ 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.
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* Literature values