



## ***endo*-1,4- $\beta$ -D-XYLANASE from *Cellvibrio mixtus* (Lot 91001c)**

### **Recombinant**

### **E-XYNBCM**

05/13

(EC 3.2.1.8) *endo*-1,4- $\beta$ -D-xylanase

CAZy: GH Family 10

### **PROPERTIES**

#### **1. ELECTROPHORETIC PURITY:**

- Single band on SDS-gel electrophoresis (MW ~ 41,700)
- Single major band on isoelectric focusing (pI ~ 6.7)

#### **2. SPECIFIC ACTIVITY:**

24 U/mg protein (on wheat arabinoxylan) at pH 6.5 and 40°C; 44 U/mg protein (on wheat arabinoxylan) at pH 6.5 and 50°C.

**One Unit** of xylanase activity is defined as the amount of enzyme required to release one  $\mu$ mole of xylose reducing-sugar equivalents per minute from wheat arabinoxylan (5 mg/mL) in sodium phosphate buffer (100 mM) pH 6.5.

#### **3. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:**

| Substrate              | %       |
|------------------------|---------|
| Wheat Arabinoxylan     | 100     |
| CM-Cellulose 4M        | < 0.001 |
| Barley $\beta$ -Glucan | ~ 0.04  |

Action on polysaccharide substrates was determined at a final substrate concentration of 5 mg/mL in sodium phosphate buffer (100 mM), pH 6.5 at 40°C.

#### **4. PHYSICOCHEMICAL PROPERTIES:**

pH Optima: 6.5  
 pH Stability: 4.0 - 9.0 (> 75% control activity after 24 hours at 4°C)  
 Temperature Optima: 50°C (10 min. reaction)  
 Temperature Stability: up to 50°C (> 90% control activity after 15 min.)

#### **5. 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 6.5 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**