



## ***endo*-1,4- $\beta$ -D-XYLANASE from *Cellvibrio japonicus* (Lot 131101a)**

### **Recombinant**

### **E-XYNACJ**

05/17

(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 ~ 39,000)
- Single major band on isoelectric focusing (pI ~ 5.4)

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

**15 U/mg protein (on wheat arabinoxylan) at pH 5.0 and 40°C;**  
**~24.5 U/mg protein (on wheat arabinoxylan) at pH 5.0 and 60°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 acetate buffer (100 mM) pH 5.0.

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

Substrate	%
Wheat Arabinoxylan	100
CM-Cellulose 4M	< 0.03
Barley $\beta$ -Glucan	< 0.001

Action on polysaccharide substrates was determined at a final substrate concentration of 5 mg/mL in sodium acetate buffer (100 mM), pH 5.0 at 40°C.

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

pH Optima: 5.0  
pH Stability: 4.0 - 10.0 (> 75% control activity after 24 hours at 4°C)  
Temperature Optima: 60°C (10 min. reaction)  
Temperature Stability: up to 40°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 acetate buffer (100 mM), pH 5.0 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**