



## ***endo-1,4-β-D-XYLANASE from *Aeromonas punctata* (Lot 101202a)***

### **Recombinant**

#### **E-XYNAP**

11/19

(EC 3.2.1.8) 4-beta-D-xylan xylanohydrolase

CAZy Family: GH10

### **PROPERTIES**

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

- Single band on SDS-gel electrophoresis (MW ~ 39,400)
- Single major band on isoelectric focusing (pI ~ 5.6)

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

**11.9 U/mg protein (on wheat arabinoxylan) at pH 6.5 and 40°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 (50 mM), pH 6.5 40°C.

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

Substrate	%
Wheat Arabinoxylan	100
CM-Cellulose 4M	0.3
Barley $\beta$ -Glucan	4.0

Action on polysaccharide substrates was determined at a final substrate concentration of 5 mg/mL in sodium phosphate buffer (50 mM), pH 6.5 at 40°C.

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

- pH Optima: 6.0-6.5  
pH Stability: 6.0-9.0 (> 75% control activity after 24 h at 4°C)  
Temperature Optima: 50°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 phosphate buffer (100 mM), pH 6.5 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**