



## **endo-1,4- $\beta$ -XYLANASE M4 from *A. niger* (Lot 101001e)**

### **E-XYAN4**

(EC 3.2.1.8) 4-beta-D-xylan xylanohydrolase  
CAZy Family: GH11  
CAS: 9025-57-4

02/17

### **PROPERTIES**

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

- Single band on isoelectric focusing (pI ~ 3.7)
- Single band on SDS-gel electrophoresis (MW = 25,000)

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

**82 U/mg protein (on wheat arabinoxylan) at pH 4.5 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 (10 mg/mL) in sodium acetate buffer (100 mM) at pH 4.5 and 40°C.

#### **3. SPECIFICITY:**

*endo*-Hydrolysis of (1,4)- $\beta$ -D-xylosidic linkages in xylans.

#### **4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES**

Substrate	%
Wheat arabinoxylan	100
CM-Cellulose 4M	50.2
Barley $\beta$ -Glucan	56.8
Carob Galactomannan	< 0.026
Starch	< 0.05
<i>p</i> -Nitrophenyl $\alpha$ -L-arabinofuranoside	< 0.0008
<i>p</i> -Nitrophenyl $\beta$ -xyloside	< 0.0003

#### **5. PHYSICOCHEMICAL PROPERTIES:**

pH Optima:	4.5
pH Stability:	3.0-8.0
Temperature Optima:	60°C
Temperature Stability:	< 70°C

#### **6. STORAGE CONDITIONS:**

The enzyme is supplied as an ammonium sulphate suspension in 0.02% sodium azide and should be stored at 4°C. For the assay, enzyme preparation is diluted in 0.1 M sodium acetate buffer pH 4.5 containing BSA (0.5 mg/mL). **Swirl to mix the enzyme immediately prior to use.**