



## **endo-1,4- $\beta$ -XYLANASE MI from *Trichoderma viride* (171101a)**

### **E-XYTRI**

10/18

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

CAZy Family: GH11

CAS: 9025-57-4

### **PROPERTIES**

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

- Single major band on SDS-gel electrophoresis (MW = 20,500); Single minor band (MW = 14,000)
- Single major band on isoelectric focusing (pI 8.6); Single minor band (pI 8.4)

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

**190 U/mg protein (on wheat arabinoxylan) at pH 4.5 and 40°C**

**One Unit** of endo-1,4- $\beta$ -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), pH 4.5 at 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
XylX6 reagent	113
CM-Cellulose 4M	0.008
Barley $\beta$ -glucan	0.020
Carob galactomannan	0.0009
Starch	0.0006
<i>p</i> -Nitrophenyl $\alpha$ -L-arabinofuranoside	0.0092
<i>p</i> -Nitrophenyl $\beta$ -xyloside	< 0.0003

Action on *p*NP-substrates and polysaccharides or oligosaccharides was determined at a final substrate concentration of 5 mM and 5 mg/mL, respectively, in sodium acetate buffer (100mM), pH 4.5 at 40°C.

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

pH Optima:	4.5-5.0
pH Stability:	3.5-8.0
Temperature Optima:	50°C
Temperature Stability:	<55°C

#### **6. 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 4.5 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**