



***endo*-1,4- β -XYLANASE MI from *Trichoderma viride* (120102)**

E-XYTRI

10/17

(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- β -xylanase activity is defined as the amount of enzyme required to release one μ 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)- β -D-xylosidic linkages in xylans.

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
Wheat arabinoxylan	100
XylX6 reagent	89.4
CM-Cellulose 4M	0.02
Barley β -glucan	0.02
Tamarind amyloid	0.015
Carob galactomannan	0.006
Starch	0.005
<i>p</i> -Nitrophenyl α -L-arabinofuranoside	0.015
<i>p</i> -Nitrophenyl β -xyloside	< 0.0002
<i>p</i> -Nitrophenyl α -glucoside	< 0.0001
<i>p</i> -Nitrophenyl β -glucoside	< 0.0001
Protazyme AK (<i>endo</i> -protease)	undetectable

Action on *p*NP-substrates and polysaccharides or oligosaccharides was determined at a final substrate concentration of 2.5 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.**