endo-1,4-β-XYLANASE M4 from *A. niger* (Lot 101001f)

E-XYAN4 **02/20**

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

PROPERTIES

1. ELECTROPHORETIC PURITY:

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

2. SPECIFIC ACTIVITY:

79.3 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 µmole 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)-β-D-xylosidic linkages in xylans.

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES

Substrate	%
Wheat arabinoxylan	100
CM-Cellulose 4M	50.2
Barley β-Glucan	56.8
Carob Galactomannan	< 0.026
Starch	< 0.05
p-Nitrophenyl α-L-arabinofuranoside	< 0.0008
p-Nitrophenyl β-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.**