



β -D-XYLANASE from *T. maritima* (Lot 120303b)

Recombinant

E-XYLATM

(EC 3.2.1.8) endo-1,4-beta-xylanase; 4-beta-D-xylan xylanohydrolase

CAZy Family: GH10

CAS: 9025-57-4

08/18

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 41,700)
- One major band on isoelectric focusing (pI ~ 5.9)

2. SPECIFIC ACTIVITY:

96 U/mg protein (on wheat arabinoxylan) at pH 5.0 and 80°C

One Unit of 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 (5 mg/mL) in sodium acetate buffer (100 mM), pH 5.0.

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	~0.1
Barley β -Glucan	~0.4

Action on polysaccharide substrates was determined at a final substrate concentration of 5 mg/mL, in sodium acetate buffer (100 mM), pH 5.0 at 40°C.

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 5.0 and up to 90°C

pH Optima: 5.0

pH Stability: 3.0-9.0 (> 75% control activity after 24 h at 4°C)

Temperature Optima: 80°C (10 min reaction)

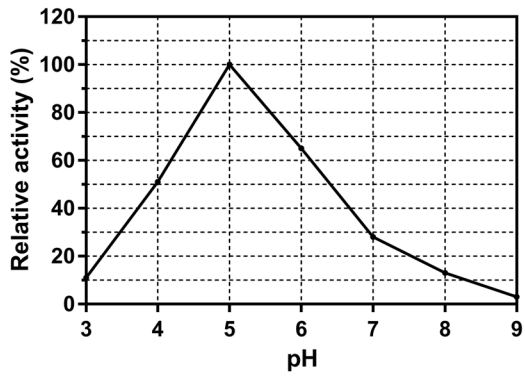
Temperature Stability: up to 90°C (> 75% control activity after 15 min incubation at temperature)

6. STORAGE CONDITIONS:

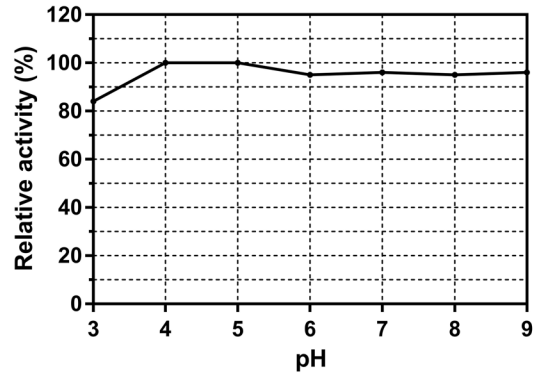
The enzyme is supplied as an ammonium sulphate suspension containing 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in sodium acetate buffer (100 mM), pH 5.0 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

7. EXPERIMENTAL DATA:

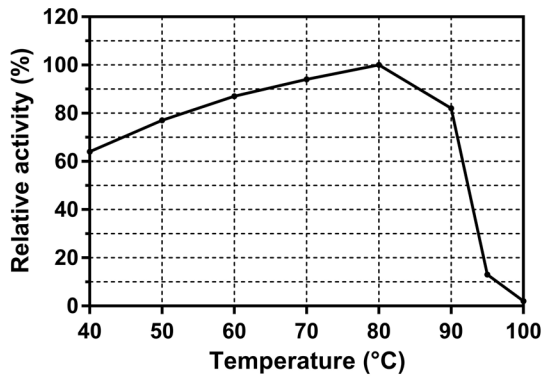
pH Optima



pH Stability



Thermal Optima



Thermal Stability

