



endo-1,4- β -D-XYLANASE from *Cellvibrio mixtus* (Lot 140902a)

Recombinant

E-XYNBCM

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

CAZy Family: GH10

CAS: 9025-57-4

11/17

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 41,700)
- Single major band on isoelectric focusing (pI ~ 6.7)

2. SPECIFIC ACTIVITY:

32 U/mg protein (on wheat arabinoxylan) at pH 6.5 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 (5 mg/mL) in sodium phosphate buffer (100 mM), pH 6.5 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
Barley β -glucan	~ 0.04
CM-Cellulose	< 0.001

Action on polysaccharide substrates was determined at a final substrate concentration of 5 mg/mL in sodium phosphate buffer (100 mM), pH 6.5 at 40°C.

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 6.0-7.5 and up to 50°C

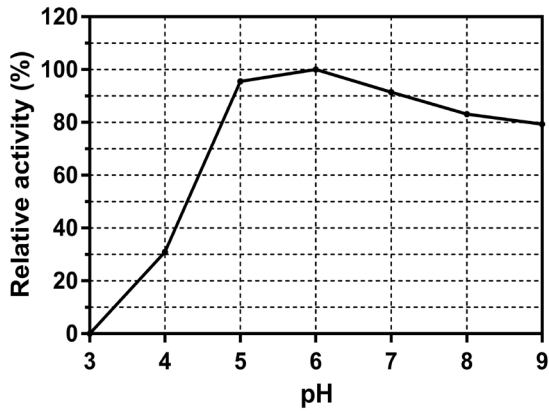
- pH Optima: 6.5
pH Stability: 4.0-9.0 (> 75% control activity after 24 h at 4°C)
Temperature Optima: 50°C (10 min reaction)
Temperature Stability: up to 50°C (> 90% control activity after 15 min incubation at temperature)

6. STORAGE CONDITIONS:

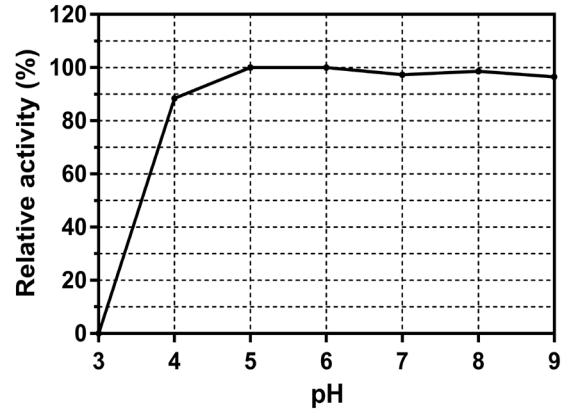
The enzyme is supplied as an ammonium sulphate suspension containing 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in sodium phosphate buffer (100 mM), pH 6.5 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

7. EXPERIMENTAL DATA:

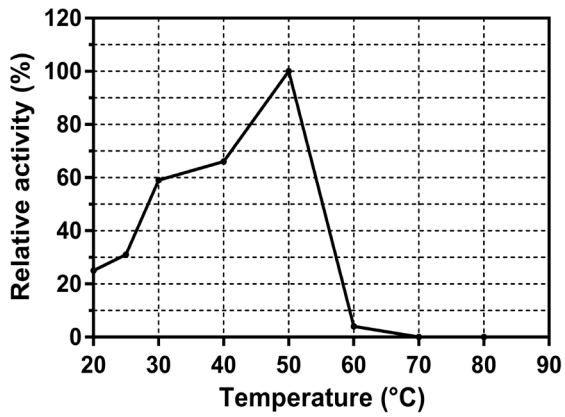
pH Optima



pH Stability



Thermal Optima



Thermal Stability

