



α -XYLOSIDASE from *Escherchia coli* (Lot 150302C)

Recombinant

E-AXSEC

04/21

(EC 3.2.1.177) alpha-xylosidase; alpha-D-xyloside xylohydrolase
CAZy Family: GH31
CAS: 53362-86-0

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 88,900)
- One major band on isoelectric focusing (pI ~ 5.7)

2. SPECIFIC ACTIVITY:

1.8 U/mg protein (on isoprimeverose) at pH 7.0 and 50°C

One Unit of α -xylosidase activity is defined as the amount of enzyme required to release one μ mole of xylose per min from isoprimeverose (10 mg/mL) in glycyglycine buffer (100 mM), pH 7.0 at 50°C.

3. SPECIFICITY:

Hydrolysis of terminal, non-reducing alpha-D-xylose residues with release of alpha-D-xylose.

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
Isoprimeverose	100%
pNP- α -xylopyranoside	~ 0.77
pNP- α -D-glucopyranoside	~ 0.16
pNP- α -L-arabinofuranoside	~ 0.05
pNP- β -D-xylopyranoside	~ 0.05
Panose	~ 0.04
Maltose	~ 0.22
Maltotriose	~ 0.20

Action on pNP substrates and polysaccharides or oligosaccharides was determined at a final substrate concentration of 5 mM and 10 mg/mL, respectively, in glycyglycine (100 mM), pH 7.0 at 50°C.

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 6.0-8.0 and up to 50°C

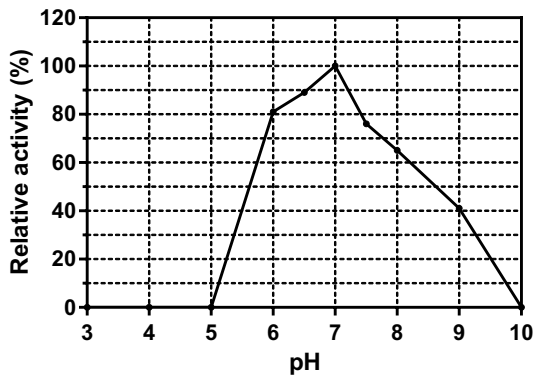
pH Optima: 7.0
pH Stability: 4.0-10.0 (> 75% control activity after 24 h at 4°C)
Temperature Optima: 50°C (10 min reaction)
Temperature Stability: up to 50°C

6. STORAGE CONDITIONS:

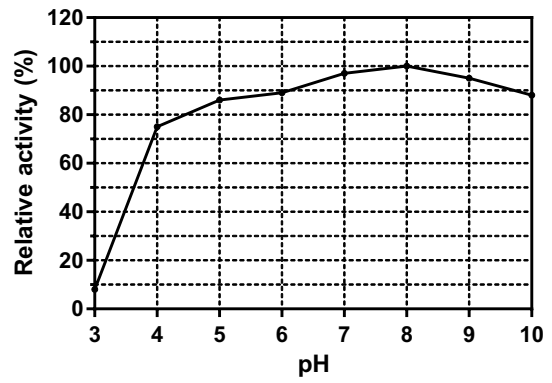
The enzyme is supplied as an ammonium sulphate suspension in 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in glycyglycine (100 mM), pH 7.0 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

7. EXPERIMENTAL DATA:

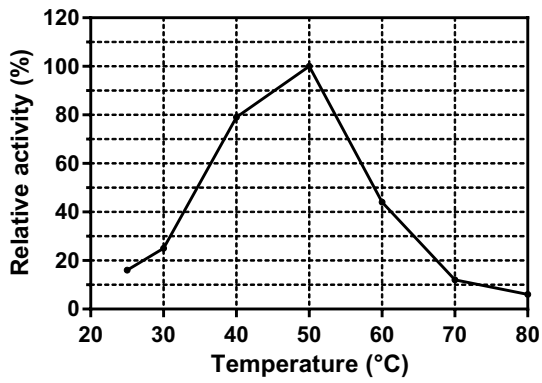
pH Optima



pH Stability



Thermal Optima



Thermal Stability

