



## $\alpha$ -XYLOSIDASE from *Escherchia coli* (Lot 150302a)

### Recombinant

#### E-AXSEC

03/19

(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  $\alpha$ -xylosidase activity is defined as the amount of enzyme required to release one  $\mu$ 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- $\alpha$ -xylopyranoside	~ 0.77
pNP- $\alpha$ -D-glucopyranoside	~ 0.16
pNP- $\alpha$ -L-arabinofuranoside	~ 0.05
pNP- $\beta$ -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

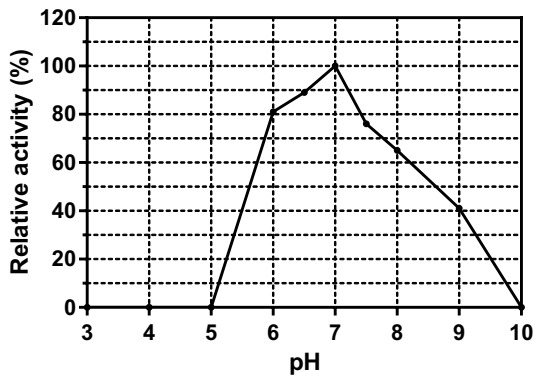
pH Optima: 7.0  
pH Stability: 4.0-10.0 (> 75% control activity after 24 h at 4°C)  
Temperature Optima: 50°C (10 min reaction)  
Temperature Stability: up to 50°C

#### 6. STORAGE CONDITIONS:

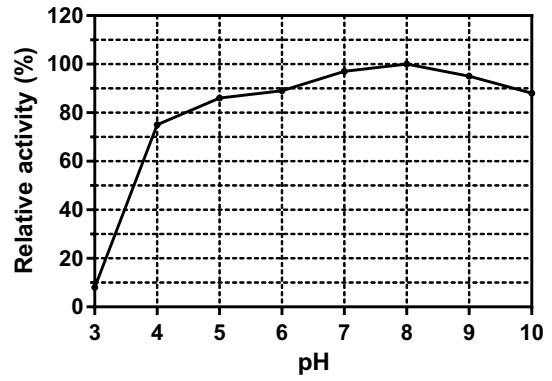
The enzyme is supplied as an ammonium sulphate suspension in 0.02% (w/v) sodium azide and should be stored at 4°C. For assay, this enzyme should be diluted in glycyglycine (100 mM), pH 7.0 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

7. EXPERIMENTAL DATA:

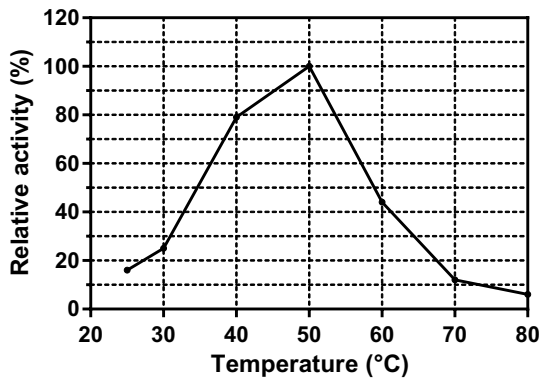
pH Optima



pH Stability



Thermal Optima



Thermal Stability

