

endo-1,4-β-Xylanase (Bacillus stearothermophilus T6) (Lot 101003d)

Recombinant

E-XYNBS

03/22

EC: 3.2.1.8

Synonyms: *endo-1,4-beta-xylanase*; 4-beta-D-xylan xylanohydrolase

CAZy Family: GH10

CAS: 9025-57-4

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 43,600)
- Single major band on isoelectric focusing (pI ~ 6.5)

2. SPECIFIC ACTIVITY:

65 U/mg protein (on wheat arabinoxylan) at pH 6.5 and 70°C;

~ 12 U/mg protein (on wheat arabinoxylan) at pH 6.5 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 (5 mg/mL) in MES buffer (100 mM) pH 6.5.

3. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
Wheat Arabinoxylan	100
CM-Cellulose 4M	~ 0.04
Barley β-Glucan	~ 5.7

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

4. PHYSICOCHEMICAL PROPERTIES:

- pH Optima: 6.5
pH Stability: 3.0-9.0 (> 75% control activity after 24 h at 4°C)
Temperature Optima: 70°C (10 min reaction)
Temperature Stability: up to 60°C (> 90% control activity after 15 min)

5. 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 MES buffer (100 mM), pH 6.5 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**