



endo-1,4-β-D-XYLANASE from *Neocallimastix patriciarum* (Lot 91002a)

Recombinant

E-XYLNP

04/18

Catalytic domain of XynIIA from *Neocallimastix patriciarum*

(EC 3.2.1.8) endo-1,4-β-D-xylanase

CAZy Family: GH11

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 25,800)
- Single major band on isoelectric focusing (pI ~ 6.5)

2. SPECIFIC ACTIVITY:

600 U/mg protein (on wheat arabinoxylan) at pH 6.0 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 sodium phosphate buffer (100 mM) pH 6.0.

3. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
Wheat Arabinoxylan	100
CM-Cellulose 4M	< 0.001
Barley β-Glucan	< 0.001

Action on polysaccharide substrates was determined at a final substrate concentration of 5 mg/mL in sodium phosphate buffer (100 mM), pH 6.0 at 40°C.

4. PHYSICOCHEMICAL PROPERTIES:

- pH Optima: 6.0 - 6.5
pH Stability: 3.0 - 9.0 (> 75% control activity after 24 hours at 4°C)
Temperature Optima: 50°C (10 min. reaction)
Temperature Stability: up to 50°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 sodium phosphate buffer (100 mM), pH 6.0 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**