endo-1,4-β-D-XYLANASE from *Cellvibrio japonicus* (Lot 131101b)

Recombinant

E-XYNACJ **05/20**

(EC 3.2.1.8) *endo*-1,4-β-D-xylanase

CAZy Family: GH10

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 39,000)
- Single major band on isoelectric focusing (pI ~ 5.4)

2. SPECIFIC ACTIVITY:

15 U/mg protein (on wheat arabinoxylan) at pH 5.0 and 40°C;
24.5 U/mg protein (on wheat arabinoxylan) at pH 5.0 and 60°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 acetate buffer (100 mM) pH 5.0.

3. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
Wheat Arabinoxylan	100
CM-Cellulose 4M	< 0.03
Barley β-Glucan	< 0.001

Action on polysaccharide substrates was determined at a final substrate concentration of 5 mg/mL in sodium acetate buffer (100 mM), pH 5.0 at 40°C.

4. PHYSICOCHEMICAL PROPERTIES:

pH Optima:	5.0
pH Stability:	4.0 - 10.0 (> 75% control activity after 24 hours at 4°C)
Temperature Optima:	60°C (10 min. reaction)
Temperature Stability:	up to 40°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 acetate buffer (100 mM), pH 5.0 containing 0.5 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**