



## XYLOGLUCANASE (GH74) from *Paenibacillus* sp. (Lot 120301a)

### **Recombinant**

### **E-XGP74**

**05/12**

(EC 3.2.1.155 / EC 3.2.1.151) xyloglucan-specific *endo*-beta-1,4-glucanase  
CAZy GH Family 74

### **PROPERTIES**

#### **1. ELECTROPHORETIC PURITY:**

- Single band on SDS-gel electrophoresis (MW ~ 108,000)
- Single major band on isoelectric focusing (pI ~ 4.7)

#### **2. SPECIFIC ACTIVITY:**

**45 U/mg protein (on tamarind xyloglucan) at pH 6.0 and 70°C.**

**One Unit** of xyloglucanase activity is defined as the amount of enzyme required to release one  $\mu$ mole of glucose reducing-sugar equivalents per minute from xyloglucan (5 mg/mL) in sodium acetate buffer (100 mM) pH 6.0.

#### **3. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:**

Substrate	%
Xyloglucan (Tamarind)	100
CM-Cellulose 4M	< 0.001
Barley $\beta$ -Glucan	< 0.001

Action on polysaccharide substrates was determined at final substrate concentrations of 5 mg/mL in sodium acetate buffer (100 mM), pH 6.0 at 70°C.

#### **4. PHYSICOCHEMICAL PROPERTIES:**

Recommended conditions of use are at pH 4.0 - 6.0 and 40°C - 80°C.

pH Optima: 5.0 - 6.0  
 pH Stability: 5.0 - 9.0 (> 75% control activity after 24 hours at 4°C)  
 Temperature Optima: 70°C (10 min. reaction)  
 Temperature Stability: up to 50°C

#### **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 6.0 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**