**endo-1,4-β-D-Xylanase from Neocallimastix patriciarum** (Lot 91001d)

**Recombinant**

**E-XYLNP**

Catalytic domain of Xyn11A from *Neocallimastix patriciarum* (EC 3.2.1.8)  *endo*-1,4-β-D-xylanase
CAZy: GH Family 11

**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:**
   - 1094 U/mg protein (on wheat arabinoxylan) at pH 6.0 and 40°C
   - ~1497 U/mg protein (on wheat arabinoxylan) at pH 6.0 and 50°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:**

<table>
<thead>
<tr>
<th>Substrate</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat Arabinxyylan</td>
<td>100</td>
</tr>
<tr>
<td>CM-Cellulose 4M</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Barley β-Glucan</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

   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.**