endo-INULINASE from *Aspergillus niger* (Lot 121001a)

Recombinant

E-ENDOIAN **12/12**

(EC 3.2.1.7) 1-beta-D-fructan fructanohydrolase; 2,1-beta-D-fructanfructanohydrolase
CAZy: GH Family 32

PROPERTIES

1. ELECTROPHORETIC PURITY

- Single band on SDS-gel electrophoresis (MW ~ 56,800)
- Single major band on isoelectric focusing (pI ~ 4.9)

2. SPECIFIC ACTIVITY

587 U/mg protein (on inulin) at pH 4.5 and 60°C; 316 U/mg protein (on inulin) at pH 4.5 and 40°C.

One Unit of *endo*-inulinase activity is defined as the amount of enzyme required to release one µg of β-D-fructose reducing-sugar equivalents per minute from inulin (20 mg/mL) in sodium acetate buffer (100 mM) at pH 4.5.

3. SPECIFICITY:

Endo-acting hydrolysis of β-2,1-D-fructosidic bonds of inulin.

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
Inulin (Raftiline) (20 mg/mL)	100
Inulin (dahlia) (10 mg/mL)	~ 95

Action on all polysaccharides and was determined was determined in sodium acetate buffer (100 mM), pH 4.5 at 60°C.

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 4.5 - 5.5 and 40°C - 60°C.

pH Optima:	4.5 - 5.5
pH Stability:	3.0 - 8.0 (> 75% control activity after 24 hours at 4°C)
Temperature Optima:	60°C (10 min. reaction)
Temperature Stability:	up to 40°C

6. 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 4.5 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**

7. EXPERIMENTAL DATA