exo-INULINASE from *Aspergillus niger* (Lot 121101b)

Recombinant

E-EXOIAN **08/17**

(EC 3.2.1.80) fructan beta-fructosidase; beta-D-fructan fructohydrolase
Also assigned to (EC 3.2.1.26) beta-fructofuranosidase; beta-D-fructofuranoside fructohydrolase
CAZy Family: GH32
CAS: 37288-56-5

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 58,400)
- Single major band on isoelectric focusing (pI ~ 5.4)

2. SPECIFIC ACTIVITY:

993 U/mg protein (on kestose) at pH 4.5 and 40°C;

~ 2486 U/mg protein (on kestose) at pH 4.5 and 60°C.

One Unit of *exo*-inulinase activity is defined as the amount of enzyme required to release one µmole of β-D-fructose reducing-sugar equivalents per minute from kestose (10 mg/mL) in sodium acetate buffer (100 mM) at pH 4.5.

3. SPECIFICITY:

EC 3.2.1.80; Hydrolysis of terminal, non-reducing (2,1)- and (2,6)-linked β-D-fructofuranose residues in fructans.

EC 3.2.1.26; Hydrolysis of terminal, non-reducing β-D-fructofuranoside residues in β-D-fructofuranosides

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
Kestose	100
Sucrose	143
Raffinose	36
Inulin (dahlia)	11

Action on all substrates was determined at final concentration of 5 mg/mL in sodium acetate buffer (100 mM), pH 4.5 at 60°C.

5. PHYSICOCHEMICAL PROPERTIES:

Recommended conditions of use are at pH 3.5 - 4.5 and 40°C - 80°C.

pH Optima:	3.5 - 4.5
pH Stability:	3.0 - 9.0 (> 75% control activity after 24 hours at 4°C)
Temperature Optima:	50 - 60°C (10 min. reaction)
Temperature Stability:	up to 50°C

6. STORAGE CONDITIONS:

The enzyme is supplied as an ammonium sulphate suspension containing 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: