



exo-INULINASE from *Aspergillus niger* (Lot I20402b)

Recombinant

E-EXOIAN

05/15

(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: GH Family 32

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

1426 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 µg of β-D-fructose reducing-sugar equivalents per minute from kestose (5 mg/mL) in sodium acetate buffer (100 mM) at pH 4.5.

3. 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.

4. 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

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