α-L-ARABINOFURANOSIDASE from *A. niger* (Lot 150601c)

E-AFASE **11/18**

(EC 3.2.1.55) alpha-L-arabinofuranoside, arabinofuranohydrolase
CAZy Family: GH51
CAS: 9067-74-7

PROPERTIES

1. ELECTROPHORETIC PURITY:
- Single major band on SDS-gel electrophoresis (MW = 62,000)
- Single major band on isoelectric focusing (pI < 3.0)

2. SPECIFIC ACTIVITY:
32 U/mg protein (*p*-nitrophenyl-α-L-arabinofuranoside) at pH 4.0 and 40°C

One Unit of α-L-arabinofuranosidase activity is defined as the amount of enzyme required to release one µmole of *p*-nitrophenol (*p*NP) per minute from *p*-nitrophenyl-α-L-arabinofuranoside (5 mM) in sodium acetate buffer (100 mM), pH 4.0 at 40°C.

3. SPECIFICITY:
Hydrolysis of α-1,2- and α-1,3-linked L-arabinofuranose residues from arabinoxylans and branched arabinans. Hydrolyses α-1,5-linked arabino-oligosaccharides at a much lower rate.

4. SPECIFIC ACTIVITY:

Substrate	%
p-Nitrophenyl-α-arabinofuranoside	100
1,5-α-L-Arabinotriitol	22.10
Sugar-beet arabinan	39.30
Wheat flour Arabinoxylan	2.19
Debranched Sugar-beet arabinan	1.25
CM-Linear Arabinian	< 0.003
Xylan Beechwood	< 0.03

Action on *p*NP-substrates and polysaccharides or oligosaccharides was determined at a final substrate concentration of 2.5 mM and 5 mg/mL, respectively, in sodium acetate buffer (100 mM), pH 4.0 at 40°C

5. PHYSICOCHEMICAL PROPERTIES:
Recommended conditions of use are at pH 4.0-4.5 and up to 60°C

pH Optima:	4.0
pH Stability:	3.5-5.0 (> 75% control activity after 16 h at 4°C)
Temperature Optima:	40°C (10 min reaction)
Temperature Stability:	up to 60°C (> 75% control activity after 15 min incubation at temperature)

6. STORAGE CONDITIONS:
The enzyme is supplied as a suspension in 3.2 M ammonium sulphate 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 4.0. **Swirl to mix the enzyme immediately prior to use.**

7. EXPERIMENTAL DATA: