



***endo*-1,5- α -L-ARABINANASE from *A. niger* (Lot 140201c)**

Non-recombinant

E-EARAB

09/20

(EC 3.2.1.99) arabinan *endo*-1,5- α -L-arabinanase; 5- α -L-arabinan 5- α -L-arabinanohydrolase

CAZy Family: GH43

CAS: 75432-96-1

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single major band on SDS-gel electrophoresis (MW = 39,750)
- Single major band on isoelectric focusing (pI ~ 3.0)

2. SPECIFIC ACTIVITY:

20 U/mg protein (on CM-linear arabinan) at pH 4.0 and 40°C

One Unit of *endo*-arabinanase activity is defined as the amount of enzyme required to release one μ mole of arabinose per minute from CM-linear arabinan (10 mg/mL) in sodium acetate buffer (100 mM), pH 4.0 at 40°C.

3. SPECIFICITY:

endo-hydrolysis of (1,5)- α -arabinofuranose linkages in (1,5)- α -arabinans. Acts more slowly on the (1,5)- α -linked arabinan backbone in branched arabinans than on linear arabinans.

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
Sugar-beet arabinan	100
Linear arabinan	100
α -L-arabinofuranosidase	< 0.8%
<i>endo</i> -Polygalacturonanase	< 0.1%
<i>endo</i> -1,4- β -Galactanase	< 0.03%

Action on pNP-substrates and polysaccharides or oligosaccharides was determined at a final substrate concentration of 5 mM and 10 mg/mL, respectively, in sodium acetate buffer (100 mM), pH 4.0 at 40°C.

5. PHYSICOCHEMICAL PROPERTIES:

pH Optima:	4.0
pH Stability:	3.0-7.0
Temperature Optima:	40°C
Temperature Stability:	< 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 4.0 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**