



α -L-ARABINANASE from *Cellvibrio japonicus* (Lot 90701c)

Recombinant

E-ARBACJ

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

CAZy Family: GH43

CAS: 75432-96-1

11/17

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single band on SDS-gel electrophoresis (MW ~ 37,000)
- Single major band on isoelectric focusing (pI ~ 6.6)

2. SPECIFIC ACTIVITY:

54 U/mg protein (on debranched arabinan) at pH 7.0 and 40°C.

One Unit of arabinanase activity is defined as the amount of enzyme required to release one μ mole of arabinose reducing-sugar equivalents per minute from debranched arabinan (10 mg/mL) in potassium phosphate buffer (100 mM), pH 7.0 at 40°C

3. SPECIFICITY:

endo- / exo-hydrolysis of (1,5)- α -arabinofuranosidic linkages in (1,5)-arabinans. Processive mode of action with predominant release of arabinotriose from linear arabinan.

4. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

Substrate	%
CM-Linear Arabinan	100
Debranched Arabinan	96
Sugar Beet Arabinan	34

Action on polysaccharide substrates was determined at a final substrate concentration of 5 mg/mL, in potassium phosphate buffer (100 mM), pH 7.0 at 40°C.

5. PHYSICO-CHEMICAL PROPERTIES:

Recommended conditions of use are at pH 6.0-7.5 and up to 40°C

pH Optima:	7.0
pH Stability:	4.0-9.0 (> 75% control activity after 24 hours at 4°C)
Temperature Optima:	40°C (10 min reaction)
Temperature Stability:	up to 40°C (> 90% control activity after 15 min)

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 potassium phosphate buffer (100 mM), pH 7.0 containing 1 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**