



α -L-ARABINANASE from *C. japonicus* (Lot 90701b)

Recombinant

E-ARBACJ

05/17

(EC 3.2.1.99) arabinan *endo*-1,5- α -L-arabinosidase; 5- α -L-arabinan 5- α -L-arabinanohydrolase
CAZy: GH Family 43

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 (5 mg/mL) in potassium phosphate buffer (100 mM) pH 7.0.

3. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES:

| Substrate | % |
|---------------------|------|
| Debranched Arabinan | 96.0 |
| CM-Linear Arabinan | 100 |
| Sugar Beet Arabinan | 34.0 |

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.

4. PHYSICOCHEMICAL PROPERTIES:

- 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.)

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 potassium phosphate buffer (100 mM), pH 7.0 containing 1.0 mg/mL BSA. **Swirl to mix the enzyme immediately prior to use.**