α-L-ARABINOFURANOSIDASE from *C. japonicus* (Lot 90601b)

Recombinant

E-ABFCJ **04/13**

(EC 3.2.1.55) α-L-arabinofuranosidase; α-L-arabinofuranoside arabinofuranohydrolase
CAZy: GH Family 51

PROPERTIES

1. ELECTROPHORETIC PURITY

- Single band on SDS-gel electrophoresis (MW ~ 55,700)
- Single major band on isoelectric focusing (pI ~ 6.6)

2. SPECIFIC ACTIVITY

12.1 U/mg protein (on *p*-NP-α-L-arabinofuranoside) at pH 5.5 and 40°C

One Unit of α-L-arabinfuranosidase 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 (2.5 mM) in sodium acetate buffer (100 mM).

3. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES

Substrate	%
p-NP-α-L-arabinofuranoside	100
Debranched Arabinan	~ 0.6
Sugar Beet Arabinan	~ 3.0
Wheat Arabinoxylan	~ 1.2

Action on *p*-NP-substrates and polysaccharide substrates was determined at a final substrate concentration of 2.5 mM and 5 mg/mL, respectively, in sodium acetate buffer (100 mM), pH 5.5 at 40°C.

4. PHYSICOCHEMICAL PROPERTIES

pH Optima:	5.5 (*p*-NP-α-L-arabinofuranoside)
pH Stability:	5.0 - 9.0 (> 75% control activity after 24 hours at 4°C)
Temperature Optima:	50°C (10 min. reaction)
Temperature Stability:	up to 60°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 sodium acetate buffer (100 mM), pH 5.5 containing 1 mg/mL BSA.

Swirl to mix the enzyme immediately prior to use.