



## $\alpha$ -L-ARABINOFURANOSIDASE from *C. thermocellum* (Lot 90701b)

### Recombinant

#### E-ABFCT

04/13

(EC 3.2.1.55)  $\alpha$ -L-arabinofuranosidase;  $\alpha$ -L-arabinofuranoside arabinofuranohydrolase  
CAZy: GH Family 51

### PROPERTIES

#### 1. ELECTROPHORETIC PURITY

- Single band on SDS-gel electrophoresis (MW ~ 58,500)
- Single major band on isoelectric focusing (pI ~ 5.7)

#### 2. SPECIFIC ACTIVITY

**58 U/mg protein (on *p*-nitrophenyl- $\alpha$ -L-arabinofuranoside) at pH 5.5 and 40°C; ~155 U/mg protein at pH 5.5 and 60°C.**

**One Unit** of  $\alpha$ -L-arabinofuranosidase activity is defined as the amount of enzyme required to release one  $\mu$ mole of *p*-nitrophenol (*p*-NP) per minute from *p*-nitrophenyl- $\alpha$ -L-arabinofuranoside (2.5 mM) in sodium acetate buffer (100 mM).

#### 3. RELATIVE RATES OF HYDROLYSIS OF SUBSTRATES

Substrate	%
<i>p</i> -NP- $\alpha$ -L-arabinofuranoside	100
Debranched Arabinan	~ 1.0
Sugar Beet Arabinan	~ 0.4
Wheat Arabinoxylan	~ 0.05

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: 5.0 - 6.0 (*p*-NP- $\alpha$ -L-arabinofuranoside)  
 pH Stability: 5.0 - 9.0 (> 75% control activity after 24 hours at 4°C)  
 Temperature Optima: 60°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.**