



## **$\alpha$ -GALACTOSIDASE FROM *Aspergillus niger* (Lot 130701a)**

### **E-AGLANP**

**04/18**

(EC 3.2.1.22)  $\alpha$ -D-galactoside galactohydrolase  
CAZy Family: GH36

### **PROPERTIES**

#### **1. ELECTROPHORETIC PURITY:**

- Single major band on SDS-gel electrophoresis (MW = 97,000)
- Single major band on isoelectric focusing (pI = 4.2)

#### **2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES:**

All activities are at pH 4.5 and 40°C. Glycosidase activities were measured using the appropriate *p*-nitrophenyl glycoside (at 10 mM). *endo*-Glycanases were determined with the appropriate substrate (at 10 mg/mL) and using the Nelson/Somogyi reducing-sugar procedure. One Unit of activity is the amount of enzyme required to release one micromole of product (e.g. *p*-nitrophenyl) per min at pH 4.5 and 40°C.

Substrate	Enzyme Measured	Specific Activity (U/mg protein)
<i>p</i> -NP- $\alpha$ -Galactoside	$\alpha$ -Galactosidase	606
<i>p</i> -NP- $\beta$ -Galactoside	$\beta$ -Galactosidase	0.1
<i>p</i> -NP- $\alpha$ -Glucoside	$\alpha$ -Glucosidase	0.001
<i>p</i> -NP- $\beta$ -Glucoside	$\beta$ -Glucosidase	3.0
<i>p</i> -NP- $\beta$ -Xyloside	$\beta$ -Xylosidase	0.1
<i>p</i> -NP- $\beta$ -Mannoside	Arabinofuranosidase	0.01
<i>p</i> -NP- $\alpha$ -L-arabinoside	$\alpha$ -L-arabinofuranosidase	0.001
Carob Galactomannan	<i>endo</i> -1,4- $\beta$ -Mannanase	< 0.01
Sucrose	Invertase	0.08
1-Kestose	<i>exo</i> -Inulinanase	0.05
1,1-Kestotetraose	<i>exo</i> -Inulinanase	0.05
Fructan (polymer)	<i>exo</i> -Inulinanase	0.01

#### **3. PHYSICOCHEMICAL PROPERTIES:**

pH Optima: 4.5-5.0  
 pH Stability: 4.0-8.0  
 Temperature Optima: 60°C (at pH 5.0)  
 Temperature Stability: Unstable above 60°C

#### **4. STORAGE CONDITIONS:**

The enzyme is supplied as a freeze-dried powder and should be stored dry at -20°C. On dissolution in buffer, the enzyme should be stored in the frozen state in a polypropylene container between use. For use in **K-FRUC** kit, dissolve the contents of the bottle in 15 mL of 50 mM sodium acetate buffer (pH 4.5) and store in 5 mL aliquots in polypropylene tubes at -20°C between use.