



## α-GALACTOSIDASE from *Aspergillus niger* (Lot 00901a)

### E-AGLAN

11/14

(EC 3.2.1.22) alpha-D-galactoside galactohydrolase

CAZy Family: GH 36

### 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-α-Galactoside	α-Galactosidase	620
<i>p</i> -NP-β-Galactoside	β-Galactosidase	< 0.001
<i>p</i> -NP-α-Glucoside	α-Glucosidase	< 0.001
<i>p</i> -NP-β-Glucoside	β-Glucosidase	< 0.001
<i>p</i> -NP-β-Xyloside	β-Xylosidase	< 0.001
<i>p</i> -NP-β-Mannoside	β-Mannosidase	< 0.001
<i>p</i> -NP-α-L-arabinoside	α-L-arabinofuranosidase	< 0.001
Carob Galactomannan	endo-1,4-β-Mannanase	< 0.02
Sucrose	Invertase	< 0.05
1-Kestose	exo-Inulinanase	< 0.01
1,1-Kestotetraose	exo-Inulinanase	< 0.01
Fructan (polymer)	exo-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 an ammonium sulphate suspension in 0.02% sodium azide and should be stored at 4°C. On dissolution in buffer, the enzyme should be stored in the frozen state in a polypropylene container between use. We recommend the addition of BSA (0.5 mg/mL) to all dilution buffers to improve stability of the enzyme.