



α -GALACTOSIDASE FROM *Aspergillus niger* (Lot 130701)

E-AGLANP

07/13

(EC 3.2.1.22) α -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	606
<i>p</i> -NP- β -Galactoside	β -Galactosidase	0.1
<i>p</i> -NP- α -Glucoside	α -Glucosidase	0.001
<i>p</i> -NP- β -Glucoside	β -Glucosidase	3.0
<i>p</i> -NP- β -Xyloside	β -Xylosidase	0.1
<i>p</i> -NP- β -Mannoside	Arabinofuranosidase	0.01
<i>p</i> -NP- α -L-arabinoside	α -L-arabinofuranosidase	0.001
Carob Galactomannan	endo-1,4- β -Mannanase	< 0.01
Sucrose	Invertase	0.08
l-Kestose	exo-Inulinanase	0.05
l,l-Kestotetraose	exo-Inulinanase	0.05
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 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.