



-GALACTOSIDASE FROM GUAR SEED (Lot 00903)

E-AGLGU

06/03

PROPERTIES

1. ELECTROPHORETIC PURITY

- Single major band on SDS-gel electrophoresis (MW = 44,500)
- Three bands on Isoelectric focusing (pI = 3.7-4.1).

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- -Galactoside	-Galactosidase	74.0
<i>p</i> -NP-β-Galactoside	β-Galactosidase	< 0.0001
<i>p</i> -NP- -Glucoside	-Glucosidase	< 0.001
<i>p</i> -NP-β-Glucoside	β-Glucosidase	< 0.0001
<i>p</i> -NP-β-Xyloside	β-Xylosidase	< 0.001
<i>p</i> -NP-β-Mannoside	β-Mannosidase	< 0.0001
<i>p</i> -NP- -L-arabinoside	-L-arabinofuranosidase	< 0.0001
Carob Galactomannan	<i>endo</i> -1,4-β-Mannanase	< 0.0000001

3. PHYSICO-CHEMICAL PROPERTIES

pH Optima	4.5-5.0
pH Stability	4.0-8.0
Temperature Optima	40°C (at pH 5.0)
Temperature Stability	Unstable above 40°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. BSA (0.5 mg/ml) is added to improve stability properties. 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.

The enzyme is supplied at a concentration of approximately 150 U/ml.