



AMYLOGLUCOSIDASE FR (*A. niger*) (Lot 120701b)

E-AMGFR-500MG

03/19

PROPERTIES

1. ELECTROPHORETIC PURITY

- Single band on isoelectric focusing (pI ~ 4.0)
- Single major band on SDS-gel electrophoresis (MW ~ 143,500)

2. SPECIFIC ACTIVITY AND LEVELS OF OTHER ACTIVITIES

SUBSTRATE	ACTIVITY (U/mg) at 40°C
Amyloglucosidase (starch)	34.6
α -amylase (Ceralpha Reagent)	0.35
Cellulase (barley β -glucan)	<0.0001
Fructan (<i>exo</i> - and <i>endo</i> -inulinase)	undetectable

3. PHYSICOCHEMICAL PROPERTIES

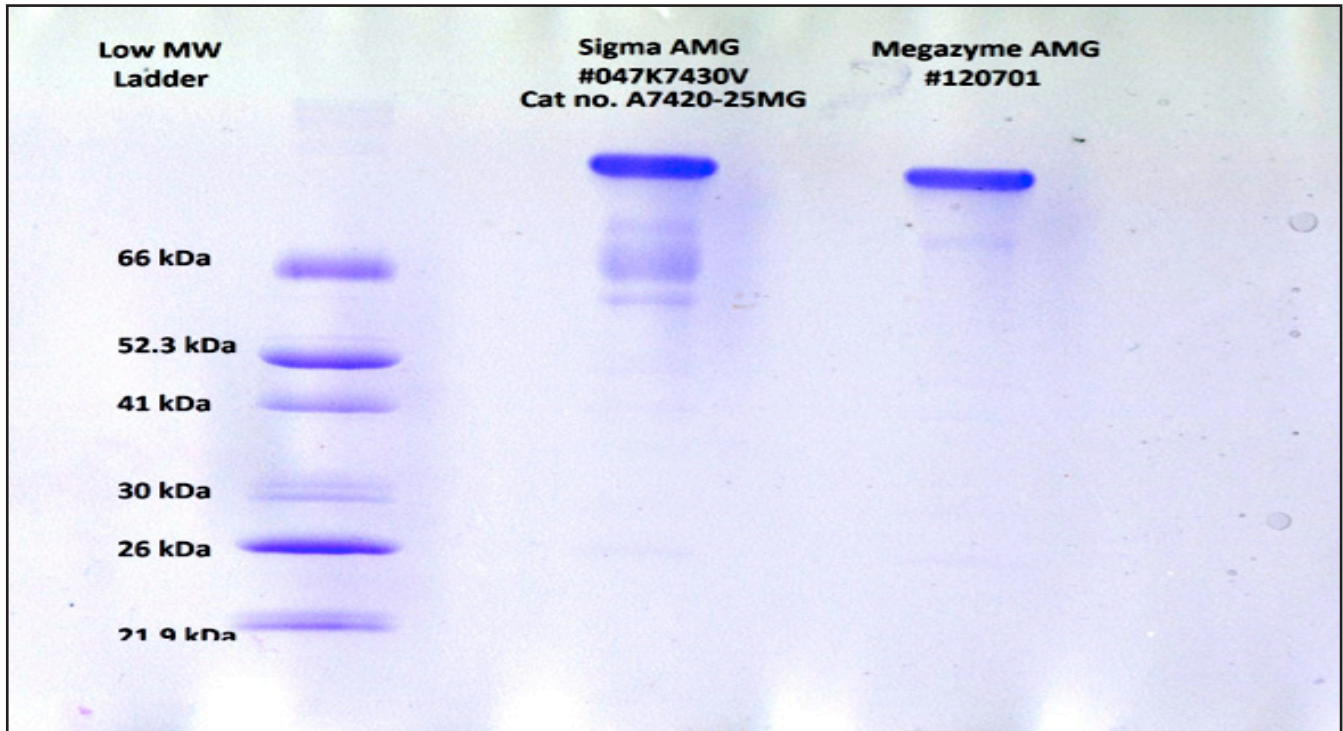
pH Optima	4.0
pH Stability	4.0-5.5
Temperature Optima	70°C
Temperature Stability	< 60°C

4. STORAGE CONDITIONS

The enzyme is supplied as a powder and should be stored dry below -10°C.

Recommended for use in the AOAC Fructan Method (Method 997.08).

SDS Gel electrophoresis of amyloglucosidase preparations



A comparison of amyloglucosidase preparations recommended for use in AOAC Method 997.08 (Fructan).

A. ELECTROPHORETIC PURITY

- Megazyme **E-AMGFR-100MG** (and **E-AMGFR-500MG**) is a single major band on SDS-gel electrophoresis (with a very minor second band).
- Sigma AMG cat. no. A7420-25MG, Lot 047K7430V, is a single major band with several minor bands.

B. SOLUBILITY

- Megazyme **E-AMGFR-100MG** (and **E-AMGFR-500MG**) - completely soluble in water or sodium acetate buffer (100 mM, pH 4.5).
- Sigma AMG cat. no. A7420-25MG, Lot 047K7430V - only partially soluble.

C. SPECIFIC ACTIVITY

- Megazyme **E-AMGFR-100MG** (and **E-AMGFR-500MG**): 34.5 U/mg on soluble starch (pH 4.5, 40°C). 97.7 U/mg on soluble starch (pH 4.5, 55°C).
- Sigma AMG cat. no. A7420-25MG, Lot 047K7430V - 23.6 U/mg on soluble starch (pH 4.5, 40°C). 53.3 U/mg on soluble starch (pH 4.5, 55°C).