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

E-AMGFR 100/500 **08/12**

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	
α-amylase (Ceralpha Reagent)	0.35
Cellulase (barley β-glucan)	<0.0001
Fructan (*exo*- and *endo*-inulinase)	undetectable

3. PHYSICOCHEMICAL PROPERTIES

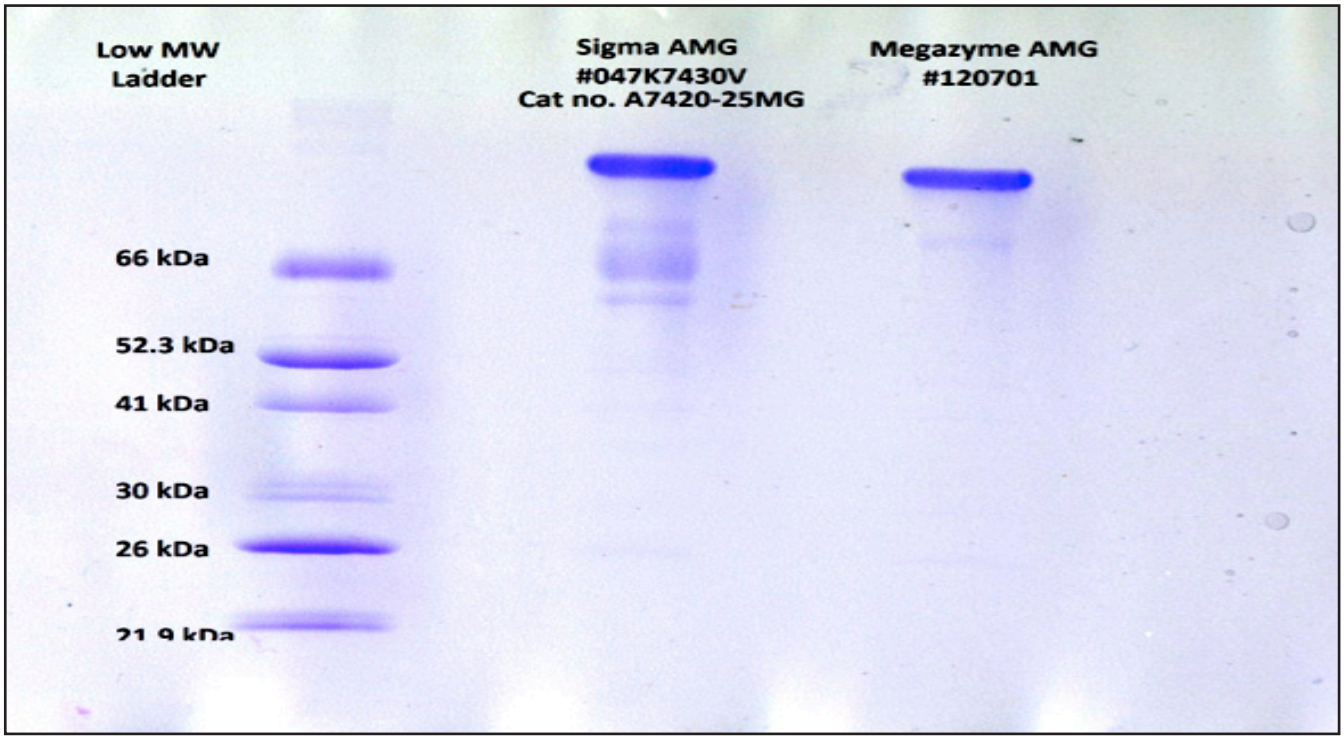
pH Optima	4.0
pH Stability	4.0-5.5
Temperature Optima	70°C
Temperature Stability	< 60°C

4. STORAGE CONDITIONS

The enzyme is supplied as a powder and should be stored dry at -20°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-AMGFR100 (and E-AMGFR500) 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-AMGFR100 (and E-AMGFR500) - 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-AMGFR100 (and E-AMGFR500): 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).