α-AMYLASE (*Bacillus licheniformis*) (Lot 151201a)

E-BLAAM-40ML **06/17**

(EC 3.2.1.1) 4-alpha-D-glucan glucanohydrolase
CAZy Family: GH13
CAS: 9000-90-2 / 9000-85-5

PROPERTIES

1. ELECTROPHORETIC PURITY:

- Single major band on isoelectric focusing (pI = 7.4)
- Single major band on SDS-gel electrophoresis (MW = 58,000)

2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES:

Substrate	Specific Activity (U/mg Protein)
α-Amylase (Ceralpha Reagent at pH 6.5)	54.0
Amyloglucosidase (*p*-Nitrophenyl ß-maltoside)	undetectable
Cellulase (CM-Cellulose 4M)	undetectable
β-Mannanase (carob galactomannan)	undetectable

One Unit of α-amylase is the amount of enzyme required to release one µmole of *p*-nitrophenol from blocked *p*-nitrophenyl-maltoheptaoside per minute (in the presence of excess α-glucosidase) at pH 6.5 and 40°C.

3. PHYSICOCHEMICAL PROPERTIES:

pH Optima:	6.0-6.5
pH Stability:	4.5-8.0
Temperature Optima:	75°C
Temperature Stability:	< 80°C

4. STORAGE CONDITIONS:

The enzyme is supplied as a stabilised solution and should be stored at 4°C.

The enzyme is supplied at a concentration of 3000 U/mL on Ceralpha Reagent at pH 6.5 and 40°C (i.e. approximately 10,000 U/mL on soluble starch under the same assay conditions).

This enzyme is recommended for use in **Total Dietary Fibre** analytical procedures and the Megazyme **Total Starch** test method, suitable for use at pH 6.5 and above. The preparation is effectively devoid of cellulase and is free of catalase.