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Product Information

α -Amylase from *Bacillus globigii* (*Bacillus licheniformis*)

Product Number **A 3403**
Storage Temperature 2-8 °C

Product Description

Enzyme Commission (EC) Number: 3.2.1.1
CAS Number: 9000-85-5
Molecular Weight: 62 kDa (SDS-PAGE).¹

This product has a pH range for activity of 5-9 with the optimal pH range of 7-9. It is stable between pH 7 and 10 and is stable from 40 to 60 °C at pH 7. Maximal activity was displayed at 90 °C and 60% of activity remained at 100 °C.¹

α -Amylase hydrolyzes the α -(1,4) glucan linkages in polysaccharides of three or more α -(1,4) linked D-glucose units. The α -(1,6) bond is not hydrolyzed. Starch or glycogen, the "natural" substrates, can be replaced to a limited extent by low molecular weight compounds.²

The product is supplied as a saline sucrose solution containing 10-50 mg/ml protein (Biuret).

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Storage/Stability

This enzyme maintains over 98% of activity after 60 minutes at pH 6.2 at 85 °C,¹ and maintained 100% of activity after storage for 1 hour at 91 °C.⁴

References

1. Morgan, F.J., and Priest, F.G., Characterization of a Thermostable α -Amylase from *Bacillus licheniformis* NCIB 6346, J. Appl. Bacteriol., **50**, 107-114 (1981).
2. Enzyme Handbook, Barman, T.E., Springer-Verlag (New York: 1969) Vol. II, EC 3.2.1.1, p. 560.
3. The Enzyme Handbook, Schomburg, D., and Salzmann, M., Springer-Verlag (Berlin Heidelberg: 1991) Vol. 4, EC 3.2.1.1, p. 7.
4. Medda, S., and Chandra, A., New Strains of *Bacillus licheniformis* and *Bacillus coagulans* producing thermostable α -amylase active at alkaline pH. J. Appl. Bacteriol., **48**, 47-58 (1980).

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