Product Information

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

Catalog Number A3403
Storage Temperature 2–8 °C

CAS RN 9000-85-5
EC 3.2.1.1
Synonyms: 1,4-α-D-Glucan-glucanohydrolase

**Product Description**

α-Amylase breaks down starch into sugars, by hydrolysis of the α-(1→4) glucan linkages in polysaccharides of three or more α-(1→4) linked D-glucose units, without hydrolyzing the α-(1→6) bond. α-Amylase occurs in many natural sources, including animals and plants, but also notably in microorganisms, such as different *Bacillus* species:

- *B. amyloliquefaciens*
- *B. licheniformis*
- *B. stearothermophilus*
- *B. subtilis*
- *B. megaterium*
- *B. circulan*

α-Amylase from *Bacillus licheniformis* NCIB 6346 has been reported to maintain >98% of activity after 60 minutes at pH 6.2 at 85 °C. Other α-amylases have been reported to maintain 100% of activity after storage for 1 hour at 91 °C. For routine experimental work, the natural substrates starch or glycogen can be replaced, to a limited extent, by low molecular weight compounds.

Different molecular mass values of α-amylases from different strains of *Bacillus licheniformis* have been published:

- NCIB 6346: 62 kDa
- 44MB82-A: 58 kDa
- MTCC 1483: 58 kDa

Crystal structures for α-amylase from *B. licheniformis* have been reported, in both a Ca²⁺-depleted form and a metal-ion bound form.

α-Amylase has a pH range for activity of 5–9, with an optimal pH range of 7–9.

The product is supplied as a saline sucrose solution containing ≥10 mg/mL protein.

**Precautions and Disclaimer**

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

**References**


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