

## Product Information

### $\alpha$ -Amylase from *Aspergillus oryzae*

Product Number **A 6211**

Storage Temperature  $-0^{\circ}\text{C}$

#### Product Description

Enzyme Commission (EC) Number: 3.2.1.1

CAS Number: 9001-19-8

$\alpha$ -Amylase isolated from *Aspergillus oryzae* has reported molecular weights of 51 kDa (sedimentation and diffusion) and 49 kDa (gel filtration).<sup>1</sup> The pH range for activity of  $\alpha$ -amylase isolated from *Aspergillus oryzae* is 5.5 to 10.<sup>2</sup>

$\alpha$ -Amylase hydrolyzes the  $\alpha$ -(1,4) glucan linkages in polysaccharides of three or more  $\alpha$ -(1,4) linked D-glucose units. The  $\alpha$ -(1,6) bond is not hydrolyzed. Starch or glycogen, the "natural" substrates, can be replaced to a limited extent by low molecular weight compounds.<sup>3</sup>

The product is supplied as a lyophilized powder containing approximately 20% protein (Biuret).

#### Precautions and Disclaimer

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

#### Preparation Instructions

The product is soluble in water (1 mg/ml), yielding a clear, colorless solution.

#### Storage/Stability

$\alpha$ -Amylase is stable in 25 mM Tris-HCl, pH 7.5, with 100 mM KCl at  $0^{\circ}\text{C}$  or at  $-20^{\circ}\text{C}$  for at least 9 days.<sup>2</sup> Another recommended storage condition is in 1 mM phosphate, pH 7.3, with 30 mM  $\text{CaCl}_2$  at  $-15^{\circ}\text{C}$ .

#### References

1. Takagi, T., et al, in The Enzymes, 3rd. ed., Vol. 5, Boyer, P. D., ed., Academic Press (New York, NY: 1971), pp. 235-271.
2. The Enzyme Handbook, Vol. 4, Schomburg, D., and Salzmann, M., Springer-Verlag (Berlin Heidelberg: 1991), EC 3.2.1.1, p. 7.
3. Enzyme Handbook, Barman, T.E., Springer-Verlag (New York: 1969) Vol. II, EC 3.2.1.1, p. 560.

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