

## Product Information

### **Chitinase** from *Serratia marcescens*

Product Number **C 7809**

Storage Temperature below 0 °C

CAS#: 9001-06-3

EC#: 3.2.1.14

Accession Number: Q54442

Synonyms: Chitodextrinase, Poly(1,4-beta-[2-acetamido-2-deoxy-D-glucoside]) glycanohydrolase

#### **Product Description**

Lyophilized powder containing 20-40% protein (Biuret); balance primarily phosphate buffer salts

The apparent molecular weight is 67,000 Da by SDS PAGE and gel filtration.<sup>1</sup> The molecular weight based on the amino acid sequence is 52,159.<sup>2</sup>

Activity: 400-1,200 units per g solid.

Unit Definition: One unit will liberate 1.0 mg of N-acetyl-D-glucosamine from chitin per hour at pH 6.0 at 25 °C in a 2 hour assay.

One new 1 hour unit = approx. 50 old 48 hour units.

#### **Precautions and Disclaimer**

This product is for laboratory research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### **Preparation Instructions**

Stock solutions and dilutions can be made in 200 mM potassium phosphate buffer, pH 6.0, with 2 mM calcium chloride.

Our assay procedure utilizes 160 mM potassium phosphate, 2 mM calcium chloride, and 1% chitin at pH 6.0.<sup>3</sup> Further details of our procedure are on our website. See [www.sigma-aldrich.com/enzymeexplorer](http://www.sigma-aldrich.com/enzymeexplorer).

#### **Storage/Stability**

It is recommended to store the product below 0 °C.

#### **References**

1. Biochemistry, **14**, 5105 (1975).
2. Appel R.D., et al., Trends Biochem. Sci., **19**, 258-260 (1994).
3. Monreal, J., and Reese, E.T., Canadian Journal of Microbiology, **15**, 689-696 (1969).

RBG/MAM 12/01

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.