

## **β-Agarase I from E. coli, Recombinant**

Cat. No. NATE-1282

Lot. No. (See product label)

## Introduction

**Description** Agarase is an enzyme with system name agarose 4-glycanohydrolase. It found in agarolytic bacteria

and is the first enzyme in the agar catabolic pathway. It is responsible for allowing them to use agar as their primary source of Carbon and enables their ability to thrive in the ocean. Agarases are classified as either  $\alpha$ -agarases or  $\beta$ -agarases based upon whether they degrade  $\alpha$  or  $\beta$  linkages in agarose, breaking them into oligosaccharides. When secreted,  $\alpha$ -agarases yield oligosaccharides with 3.6 anhydro-L-galactose at the reducing end whereas  $\beta$ -agarases result in D-galactose residues.

Applications β-Agarase I digests agarose, releasing trapped DNA and producing carbohydrate molecules which can

no longer gel.  $\beta$ -Agarase I can be used to purify both large (> 50 kb) and small (< 50 kb) fragments of DNA from gels. The remaining carbohydrate molecules and  $\beta$ -Agarase I will not, in general, interfere with subsequent DNA manipulations such as restriction endonuclease digestion, ligation, and

transformation.

**Synonyms** agarase; AgaA; AgaB; endo-β-agarase; agarose 3-glycanohydrolase; EC 3.2.1.81; 37288-57-6

## **Product Information**

**Species** E. coli

**Source** E. coli

Definition

**Form** 50 mM Bis Tris-HCl (pH 6.5), 1 mM Na2EDTA and 50% glycerol.

**Concentration** 1,000 units/ml

Unit One unit is defined as the amount of enzyme required to digest 200 µl of molten low melting point or

NuSieve agarose to nonprecipitable neoagaro-oligosaccharides in 1 hour at 42°C.

## Storage and Shipping Information

**Storage** at -20°C

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