Creative Enzymes®

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 α-agarases or β-agarases based upon whether they degrade αor β linkages in agarose, breaking them into oligosaccharides. When secreted, α-agarases yield oligosaccharides with 3.6 anhydro-L-galactose at the reducing end whereas β-agarases result in D-galactose residues.

Applications β-Agarase I digests agarose, releasing trapped DNA and producing carbohydrate molecules which can no longer gel. β-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 β-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

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

Concentration 1,000 units/ml

Unit Definition 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