



Chitin Hydrolysate contains N-acetyl-D-glucosamine and oligomers of this sugar. Chitin Hydrolysate can inhibit binding of certain lectins which require N-acetyl-D-glucosamine as part of the receptor structure. These lectins include *Datura stramonium* lectin, *Lycopersicon esculentum* (tomato) lectin, *Solanum tuberosum* (potato) lectin, *Ulex europaeus* agglutinin II and wheat germ agglutinin. This product is useful for eluting glycoconjugates from agarose-bound lectins or for inhibiting lectin conjugates from binding to cell or tissue receptors. It should be noted that not all interactions of these lectins with carbohydrate receptor structures can be completely inhibited by Chitin Hydrolysate solutions.

1. For eluting glycoproteins or other glycoconjugates from lectin-agarose gels, a solution containing the Chitin Hydrolysate can be passed over the columns or added to an agarose-lectin gel slurry. When using a column, efficient elution generally can be achieved by passing a Chitin Hydrolysate solution over the column with the flow rate determined by gravity. For gel slurries, incubation times from 5 min. - 30 min. can be employed and the eluted fraction separated by centrifugation or filtration. The concentration of Chitin Hydrolysate must be established for each lectin-glycoconjugate interaction but, in most cases, a concentration range of undiluted up to 1:10 can be used.
2. For inhibiting the binding of lectin conjugates to tissues or cells, the lectin conjugate should be diluted with appropriate buffer containing Chitin Hydrolysate and allowed to interact for 30 minutes before application to tissue sections. Dilution of the Chitin Hydrolysate must be established for each lectin, but the general range for effective inhibition is 1:4 up to 1:50. Higher concentrations of the Chitin Hydrolysate provide better inhibition.