



# STREPTAVIDIN-AGAROSE

## SPECIFICATIONS

**Product Code:** CJ30R  
**Biotin Binding:**  $\geq 100$  nmoles/ml gel (measured as binding of biotin-4-fluorescein)  
**Formulation:** Suspension (~50% v/v) in Phosphate Buffered Saline with 0.05% sodium azide.  
**Stability:** Stable for at least 1 year when stored properly.  
**Storage:** 4°C **DO NOT FREEZE**  
Shipped with ice pack for next day delivery.

Biotin (vitamin H) can be covalently bound to proteins, nucleic acids or other macromolecules. Such modified entities will bind to streptavidin with the same affinity and specificity that is exhibited by free biotin. Using streptavidin immobilized on agarose and appropriate biotinylated monoclonal antibodies, Updyke and Nicolson (1984) were able to isolate solubilized membrane antigens, and Gretch and Stinski (1987) were able to isolate herpesvirus hydrophobic proteins. Buckie and Cook (1986) used immobilized streptavidin with biotinylated concanavalin A to isolate and purify surface glycoproteins from mammalian cells.

**Applications:** Immobilization of biotinylated molecules. Isolation of plasma membrane or other proteins in conjunction with biotinylated antibodies.

## CHARACTERISTICS

**Composition:** Beads of cross-linked 4.3% agarose (the bead size distribution is 75-300 microns). ProZyme Streptavidin is attached to the beads through a stable amide linkage with a 15-carbon spacer arm. This linkage is very stable throughout a wide pH range (4 to 11). The streptavidin content is  $>1$  mg/ml of packed beads. ProZyme Streptavidin-agarose is supplied as a suspension in phosphate buffered saline (25 mM sodium phosphate, 150 mM NaCl, pH 7.0) containing 0.05% sodium azide as a preservative.

**Binding properties:** Binding of biotinylated material is rapid and essentially irreversible. Material modified with 2-iminobiotin may be bound to streptavidin at high pH ( $>9.5$ ) and eluted at low pH ( $<4$ ).

## REFERENCE

- Buckie, W. J. and G. M. W. Cook. Specific isolation of surface glycoproteins from intact cells by biotinylated concanavalin A and immobilized streptavidin. **Analyt Biochem** **156**: 463-472 (1986).
- Gretch, D. R. and M. F. Stinski. The use of biotinylated monoclonal antibodies and streptavidin affinity chromatography to isolate herpesvirus hydrophobic proteins or glycoproteins. **Analyt Biochem** **163**: 270-277 (1987).
- Updyke, T. V. and G. L. Nicolson. Immunoaffinity isolation of membrane antigens with biotinylated monoclonal antibodies and immobilized streptavidin matrices. **J Immunol Methods** **73**: 83-95 (1984).



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