

# Peroxidase-Labeled Streptavidin



**Catalog No.**  
14-30-00

**Size**  
0.5 mg

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## DESCRIPTION

L-635-03

Streptavidin is a 60,000 dalton protein isolated from the bacterium *Streptomyces avidinii* and binds four molecules of biotin with high affinity ( $K_d = 10^{-15}$  M). Streptavidin is covalently linked with peroxidase by a modification of the periodate method of Nakane and Kawaoi <sup>1)</sup>.

## FORM/STORAGE

Lyophilized. Store at 2 - 8°C until rehydrated. Stable for a minimum of 1 year when stored at 2 - 8°C.

## STABILIZER AND PRESERVATIVE

Bovine serum albumin added as protein stabilizer. No preservatives added. Additional biological protection may be provided with 0.01% thimerosal. **Do not use sodium azide.** Non-sterile.

## E/P RATIO

Molar enzyme to Streptavidin protein ratio = 2.5:1.

## REHYDRATION AND STORAGE

Two methods of rehydration and storage are recommended to meet most needs. Procedure A using 50% glycerol is preferred. It eliminates freezing at -20°C and 50% glycerol is an effective biological inhibitor when the product is stored at 2 - 8°C. At a working dilution, the level of glycerol is too small to affect most assays.

### Procedure A

Solution Preparation: 50% Glycerol. Mix 1 mL of Glycerol with 1 mL of reagent quality water in a test tube.

Rehydration: Transfer 1 mL of this 50% glycerol solution to the product vial. Rotate the vial until the lyophilized pellet is totally dissolved. Dilute to desired concentration with PBS or other buffer.

Storage: This product may be stored either refrigerated or frozen as desired. Product is stable for a minimum of 1 year.

### Procedure B

Rehydration: Rehydrate with 1 mL of reagent quality water. Dilute to desired concentration with PBS or other buffer.

Storage: This product may be stored for up to one week refrigerated; thereafter, it should be stored frozen. When frozen, product is stable for a minimum of one year.

Note: Variations in temperature due to freeze cycles may cause loss of activity when rehydrated product is stored frozen in aliquots less than 50  $\mu$ L.

## SUGGESTED WORKING DILUTIONS

Different assay conditions require that serial dilutions of all reagents be performed to determine optimal working concentrations. Prepare the working dilution immediately before use. Storage at a working dilution may result in enzyme inactivation and performance loss.

Suggested starting dilutions:

Microwell Plate Immunoassays: 1/100 (1.0 ug/mL)  
Membrane Immunoassays: 1/500 (0.2 ug/mL)  
Histo/Cytochemical Procedures: 1/125 – 1/250 (4.0 ug/mL)

## PRODUCT SAFETY AND HANDLING

This product is considered non-hazardous as defined by The Hazard Communication Standard (29 CFR 1910.1200). Avoid contact with skin and eyes. In case of contact or spillage, clean with copious amounts of water. Product may be disposed via a sanitary sewer.

## REFERENCES

1. Nakane, P.K. and Kawaoi, A.J. Histochem. Cytochem. 22 (1974) 1084.

## RELATED PRODUCTS

ABTS Peroxidase Substrate System	Catalog No. 50-62-00
TMB 2-Component Peroxidase Microwell Substrate System	Catalog No. 50-76-00
BlueMax TMB 1-Component Microwell Peroxidase Substrate	Catalog No. 52-00-02
4CN Peroxidase Substrate System	Catalog No. 50-73-00
TMB Membrane Substrate System	Catalog No. 50-77-00

See KPL's catalog for a complete list of antibodies, substrates and complete systems for microwell ELISA, membrane blotting, immunohistochemical applications and DNA detection.

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