R-Phycoerythrin Labeled Streptavidin

Catalog No.	Size
0718-30-00	1.0 mL

DESCRIPTION
Streptavidin is a 60,000 dalton protein isolated from the bacterium *Streptomyces avidinii*. The use of streptavidin rather than egg white avidin as the bridging reagent ensures that these products demonstrate sensitivity, high specificity and low background. Electrophoretically pure streptavidin is labeled with R-Phycoerythrin (R-PE). R-PE is a phycobiliprotein purified from higher red macroalgae. It has a large estimation coefficient, approximately 2.0 X 10^5 M^{-1} CM^{-1}, and high quantum efficiency making it an ideal fluorochrome for fluorescent assays (1,2,3).

FORM/STORAGE
Lyophilized. Store at 2-8°C and protected from light. Stable for 1 year at 4°C in the lyophilized state or 6 months after rehydration. **Do not freeze.**

STABILIZER AND PRESERVATIVE
Bovine Serum Albumin (BSA) is added as a protein stabilizer. 0.01% (w/v) sodium azide added as a preservative. Non-sterile.

REHYDRATION
Rehydration: Rehydrate with 1 mL reagent quality water. Prior to use, dilute to desired concentration in PBS or other buffer such as BSA Diluent/Blocking Solutionv(See Related Products).

Storage: Store as an undiluted liquid at 2-8°C. **Do not freeze.** Stable for 6 months from date of rehydration when stored as directed.

FLUOROCHROME:PROTEIN RATIO
Fluorochrome:streptavidin ratio = 2 - 4:1.

PURITY
A single precipitin arc is observed against biotinylated BSA and anti-streptavidin when assayed by immunoelectrophoresis.

APPLICATIONS
R-Phycoerythrin labeled streptavidin is suitable for use in immunofluorescence microscopy, flow cytometry, FACS analysis, as well as other antibody based fluorescent assays requiring low background levels. It can be used in a single color or simultaneous two or three color analysis. The excitation wavelength for R-PE is 488 nm and emission is at 575 nm.

SUGGESTED WORKING DILUTIONS
Different assay conditions require that serial dilutions of all reagents be performed to determine optimal working concentrations. Prepare working dilution in PBS or other buffer such as BSA Diluent/Blocking Solution immediately before use. Storage at a working dilution may result in conjugate inactivation and performance loss.

Suggested starting dilutions and concentrations:
Histo/Cytochemical Procedures:
1:100-1:250 (10.0 µg/mL - 4.0 µg/mL)
Flow Cytometry:
1:100-1:250 (10.0 µg/mL - 4.0 µg/mL)

R-PE is excited at 488 nm and emits at 575 nm.

RELATED PRODUCTS
BSA Diluent/Blocking Solution Concentrate
Cat. No. 50-61-00
Fluorescent Mounting Media
Cat. No. 71-00-16
Cy3 Labeled Streptavidin
Cat. No. 078-30-00
Cy5 Labeled Streptavidin
Cat. No. 079-30-00
FITC Labeled Streptavidin
Cat. No. 072-30-00
TRITC Labeled Streptavidin
Cat. No. 073-30-00

See KPL's catalog for additional antibodies, substrates and complete systems for microwell ELISA, membrane blotting and immunohistochemical applications.

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. Kronick, M.N., The use of fluorescent labels in immunoassay. *J. of Immuno. Review*, 92: 1-13, 1986.
2. Oi, V.T. , et al., Fluorescent phycobiliprotein conjugates for analysis of cell and molecules. *J. Cell Biology*, 93: 981-986, 1982.
3. Glazer, A., Stryer., Fluorescent tandem phycobiliprotein conjugates emission shifting by energy transfer. *Biochem J.*, 43:383, 1983.

Gaithersburg MD • USA
301-948-7755 • 800-638-3167 • FAX 301-948-0169 • www.kpl.com