ALPHA DIAGNOSTIC INTERNATIONAL

Product Data Sheet

Streptavidin-Conjugate

Cat#. 20365	Streptavidin-Horse radish Peroxidase (HRP) Conjugate	**Size:** 0.5 ml
Cat#. 20366	Streptavidin-Alk. Phos (AP) Conjugate	**Size:** 0.5 ml
Cat#. 20367	Streptavidin-Fluorescein (FITC) conjugate	**Size:** 0.5 mg
Cat#. 20368	Streptavidin-Rhodamine (TRITC) conjugate	**Size:** 0.5 mg
Cat#. 20369	Streptavidin- Phycoerythrin (PE) conjugate	**Size:** 0.5 ml

Streptavidin is a 53 Kda tetrameric protein purified from the bacterium Streptomyces avidinii. It finds wide uses in immunhoassay and molecular biology due to its extraordinarily strong affinity for the vitamin biotin; the dissociation constant (Kd) of the biotin-streptavidin complex is on the order of ~10-15 mol/L, ranking among one of the strongest known non-covalent interactions. There are considerable differences in the composition of avidin (found in egg white) and streptavidin, but they are remarkably similar in other respects. Both proteins form tetrameric complexes to function in which each subunit can bind one molecule of biotin. Streptavidin is much less soluble in water than avidin, and it lacks avidin's extensive glycosylation. Streptavidin has a mildly acidic isoelectric point (pI) of ~5. Because streptavidin lacks any carbohydrate modification and has a near-neutral pI, it has the advantage of much lower nonspecific binding than avidin. Deglycosylated avidin is more comparable to the size, pI and nonspecific binding of streptavidin.

Streptavidin's affinity for biotin is exploited in wide ranging biochemical assays, including western blot, ELISA, ELISPOT and pull-down assays. Streptavidin immobilized onto solid supports (ELISA plates, agarose, nitrocellulose etc) is also used as purification media to capture biotin-labelled protein or nucleic acid molecules. For example, cell surface proteins can be specifically labelled with membrane impermeable biotin reagent, then specifically captured using an avidin-based support.

Purified streptavidin is available as HRP, AP, FITC, Rhodamine, and phycoerythrin (PE) conjugate.

#20365, Streptavidin-HRP Conjugate

Purified streptavidin was coupled to HRP (RZ>3.0) using periodate method. The molar enzyme to protein (E/P) ratio = 4.0. The antibody is supplied in stabilizing buffer, 0.1% prolcin-300 as preservative in either **lyophilized** (0.5 ml) or **liquid** form (0.5-0.5 mg/ml). Reconstitute powder in PBS in 1 ml. Store at 4oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested conjugate dilutions are 1:1,000-1:50,000 ELISA, 1:1K-1:10K for western, and 1:200-1:1000 (IHC).

20366, Streptavidin-AP Conjugate

The conjugate is provided at ~0.5-1 mg/ml as liquid in a stabilizing buffer (50 mM Tris-150 mM NaCl-1 mM MgCl2, pH 7.5, containing 1% bovine serum albumin, 0.05% sodium azide and 50% glycerol). The product should be **stored at 4°C** and is stable for a minimum of 1 year. Do not store diluted solutions.
Suggested dilutions are 1:1K-1:20K for ELISA, 1:1000-1:20K for western, and 1:200-1:1K for IHC. Actual dilution in given technique must be optimized.

Cat# 20367, Streptavidin-FITC-conjugate

Purified Streptavidin was coupled to FITC at F/P ratio ~3:7. The antibody is supplied in PBS, pH 7.4, 0.2% BSA and 0.05% azide in either **lyophilized** (0.5 mg) or **liquid** form (0.5 mg/0.5 ml). Reconstitute powder in PBS in 0.5 ml to prepare 1 mg/ml solution. Store at -20oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested conjugate dilutions are 1:200-1:2000 for immunofluorescence.
Absorption: 495 nm **Emission**: 528 nm

Cat# 20368, Streptavidin-Rhodamine (TRITC)-conjugate

Purified Streptavidin was coupled to Tetramethylrhodamine isothiocyanante (TRITC) (Molecular Weight 444 daltons) at F/P ratio ~3:7. The conjugate is supplied in PBS, pH 7.4, 0.5% BSA and 0.05% azide in either **lyophilized** (0.5 mg) or **liquid** form (0.5 ml at ~0.5 mg/1 ml). Reconstitute powder in PBS in 0.5 ml to prepare 1 mg/ml solution. Store at -20oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested applications: immunomicroscopy and flow cytometry or FACS analysis as well as other antibody based fluorescent assays
Suggested conjugate dilutions are 1:200-1:1000 for immunofluorescence. users must optimize the dilutions for a given technique.
Absorption: 550 nm **Emission**: 570 nm

Cat# 20369, Phycoerythrin (PE)-conjugate

Purified Streptavidin was coupled to Phycoerythrin (R-PE) (240 Kda) from seaweed at F/P ratio of 1-2:1. . The conjugate is supplied in PBS, pH 7.4, 0.5% BSA, IgG and 0.05% azide in either **lyophilized** (0.5 ml) or **liquid** form (0.5 ml at ~0.5 mg/1 ml). Reconstitute powder in PBS in 0.5 ml to prepare 1 mg/ml solution. Store at -4oC and DO NOY FREEZE. Store in the dark in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested applications: Suitable for immunomicroscopy and flow cytometry or FACS analysis as well as other antibody based fluorescent assays
Suggested conjugate dilutions are 1:100-1:200 for immunofluorescence. Users must optimize the dilutions for a given technique.

Absorption: 490, 545, 565 nm **Emission**: 580 nm

20365-66-67-68-69 80201A

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com