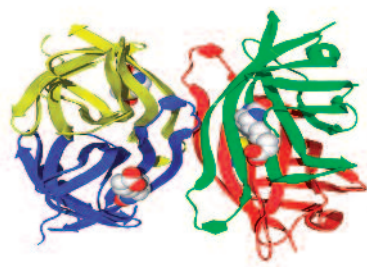


Specializing in **Secondary Antibodies** and **Conjugates**

# Streptavidin

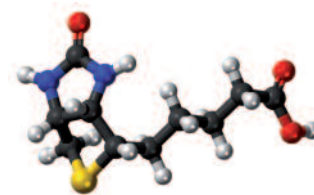
**Streptavidin**, a tetrameric bacterial protein isolated from *Streptomyces avidinii*, has 4 very strong binding sites for biotin. It is similar to egg-white avidin in its affinity for biotin but is used as a replacement for avidin because of its more favorable chemical properties. Unlike avidin which has a net positive charge at neutral pH and contains about 7% carbohydrate, streptavidin has almost no net charge at neutral pH, does not contain carbohydrate, and exhibits lower non-specific background.

## Streptavidin from *Streptomyces avidinii*



Streptavidin/Biotin complex

- 60 kDa tetramer
- pI ~ 5
- Non-glycosylated
- Low non-specific background
- 4 biotin binding sites with
- $10e^{14}$  affinity constant



Biotin

All conjugates of streptavidin are recommended for use with **Biotin-SP-conjugated affinity-purified secondary antibodies** and **Biotin-SP-conjugated ChromPure proteins**, as well as with any biotinylated primary or secondary antibody, or oligonucleotide.

Compared with the avidin-biotin-HRP complex (ABC), HRP-conjugated streptavidin is more stable, gives less background, and is more sensitive as reported by Shi *et al.* (*J. Histochem. Cytochem.* 1988. **36**, 317) and Milde *et al.* (*J. Histochem. Cytochem.* 1989. **37**, 1609). The increased sensitivity may be due to enhanced tissue penetration and less steric hindrance, since nominal molecular weights for all components of the conjugated streptavidin system are less than 200,000 Da, which are considerably lower than that of ABC.

Jackson ImmunoResearch offers a comprehensive list of fluorophores and enzymes conjugated to streptavidin for use in enzyme immunoassays, immunohistochemistry, flow cytometry, *in situ* hybridization, and immunoblotting procedures. Most streptavidin products are freeze-dried in buffer containing stabilizers and preservatives.

[www.jacksonimmuno.com](http://www.jacksonimmuno.com)

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Streptavidin		Code Number	Size
Unconjugated		016-000-084	1.0 mg
Unconjugated		016-000-113	5.0 mg
Unconjugated		016-000-114	10.0 mg
DyLight™ 405 (A=400, E=421)		016-470-084	1.0 mg
Aminomethylcoumarin, AMCA (A=350, E=450)		016-150-084	1.0 mg
Cy™2, Cyanine (A=492, E=510)		016-220-084	1.0 mg
Alexa Fluor® 488 (A=488, E=519)		016-540-084	1.0 mg
Fluorescein, DTAF** (A=492, E=520)		016-010-084	1.0 mg
Cy™3, Indocarbocyanine (A=550, E=570)		016-160-084	1.0 mg
Tetramethyl Rhodamine, TRITC (A=550, E=570)		016-020-084	1.0 mg
R-Phycoerythrin, R-PE (A=488, E=580)		016-110-084	1.0 ml
Rhodamine Red™-X, RFX (A=570, E=590)		016-290-084	1.0 mg
Alexa Fluor® 594 (A=591, E=614)		016-580-084	1.0 mg
Cy™5, Indocarbocyanine (A=650, E=670)		016-170-084	1.0 mg
Allophycocyanine, APC (A=650, E=660)		016-130-084	0.5 ml
Alexa Fluor® 647 (A=651, E=667)		016-600-084	1.0 mg
PerCP (A=488, E=675)		016-120-084	0.5 ml
Alexa Fluor® 680 (A=684, E=702)		016-620-084	0.5 mg
Alexa Fluor® 790 (A=792, E=803)		016-650-084	0.5 mg
Horseradish Peroxidase		016-030-084	1.0 mg
Alkaline Phosphatase		016-050-084	1.0 mg

\*\* DTAF and FITC contain the same fluorescein molecule, and have identical excitation and emission. However, DTAF is brighter than FITC when conjugated to streptavidin.

Alexa Fluor® fluorescent dyes are a trademark of Life Technologies Corp.  
 Cy™ is a trademark of GE Healthcare. Jackson ImmunoResearch is licensed by GE Healthcare to manufacture and sell conjugates of Cy2, Cy3, Cy5, and Cy7 under Patent Number 5,268,486 and other patents pending.  
 DyLight™ fluorescent dyes is a trademark of Thermo Fisher Scientific.  
 Rhodamine Red™-X is a trademark of Invitrogen.



Certified by BSI to ISO 9001:2015 under certificate number FM 545248.

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