

PRODUCT DATA SHEET

Streptavidin - 60nm Gold Conjugate (0.5ml, OD10)

Catalog No. AC-60-04-10 Size: 0.5ml

Description

Streptavidin conjugated 60nm gold nanoparticles. Suitable for use in immunoblotting, light microscopy, electron microscopy applications, and other procedures for secondary detection of biotin labeled samples.

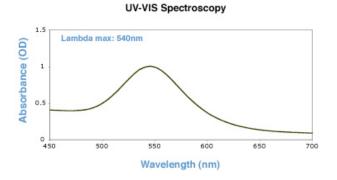
Provides a permanent and sensitive label (100pg or less) when used in conjunction with Cytodiagnostics membrane and microscopy silver enhancer kits, see related product below.

Concentration: 0.5 mg/ml (OD=10)

Conjugated Protein: Streptavidin, from *Streptomyces avidinii*

Storage Buffer: 10mM PBS (pH 7.4), 20% glycerol (v/v), 1% BSA

Working Dilution: 1:30 - 1:300



Storage

Store undiluted in storage buffer at 2-8° C. Stable for at least 4 months if stored as specified.

Product Safety and Handling

This product is for R&D use only, not for drug, household, or other uses. Please review the material safety datasheet (MSDS) available online for proper safety and handling procedures.

Related Products

Silver Enhancer Kit for Membranes Cat No. SR-01-02 Silver Enhancer Kit for Microscopy Cat No. SR-01-01

Standard Immunogold Dot-Blot Protocol

(Adapted from Moeremans et al. [1])

- Spot one microlitre drops of a serial dilution of your protein (100-0.1ng) in PBS supplemented with 50ug/ml of BSA on nitrocellulose or PVDF membrane.
- 2. Let protein drops dry into the membrane.
- 3. Block Membrane for 30 minutes using 1% (w/v) dry milk in 1X PBS at room temperature.
- 4. Incubate with primary antibody for 2 hours at room temperature.
- 5. Wash membrane 3x5 minutes with blocking solution prepared as above.
- Incubate for 2 hours (or longer for increased sensitivity) with secondary gold conjugate diluted 1:30 (OD=0.3) times with blocking solution (0.2% Blocking Solution). See Tech Note #102 for preparation of a gold conjugate.
- 7. Wash 3x5 minutes as above.
- 8. Dry membrane and record data.
- 9. (OPTIONAL) Proceed with <u>silver</u> <u>enhancement</u> to improve sensitivity.

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| 20nm Streptavidin Gold Conjugate | 20nm Strep Silver Conj | | | | | | |
|--|---------------------------|-------|-------------|------------|-------------|------------|-----|
| | • • | | Before Silv | ver Enhar | ncement | | |
| | • • | • | After Silve | er Enhand | æment | | |
| 1ug 100ng 10ng | 1ug 100ng | 10ng | Amount s | potted bio | tin labelle | d antibody | |
| | | | | | | | |
| 50nm anti-Huma Au Conjugat | | | | ۲ | | | |
| 50nm anti-Human IgG Au Urchin Conjugate | | • | | | 0 | 16 | |
| 50nm anti-Hur Ag Conjuga | | • | • | | | | |
| (H | uman IgG) | 0.2uş | g 0.1ug | 50ng | 20ng | 10ng | 5ng |

Figure 1. Example dot-blot assay for

Cytodiagnostics <u>streptavidin gold conjugate</u> (top left) and our <u>streptavidin silver conjugate</u> (top right) before and after enhancement using Cytodiagnostics silver enhancement kit for membranes. Bottom picture illustrates and highlights the difference in appearance (color) of 50nm anti-human IgG noble metal nanoparticle conjugates prepared using <u>NHS-activated</u> gold nanoparticles, <u>NHS-activated gold</u> <u>nanourchins</u>, and <u>NHS-activated silver nanoparticles</u>, respectively.

References

1. M. Moeremans, et al., Journal of Immunological Methods, 1984, 74, 353

Ordering Information

For ordering call 866-344-3954 or visit us online at <u>www.cytodiagnostics.com</u>