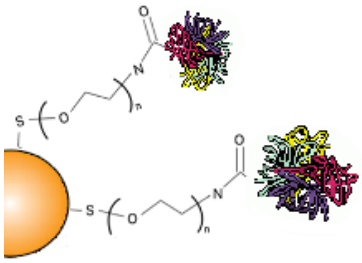
cytodiagnostics

PRODUCT DATA SHEET

Streptavidin – Covalent Gold Conjugate



Description

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

When compared to traditional conjugates utilizing passive adsorption, covalent conjugation provides:

- Improved stability of the final conjugate
- Higher sensitivity in assays
- Reduced background and non-specific binding events
- Improved control over the final loading of protein onto the gold's surface

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

Concentration: 0.15 mg/ml (@ OD=3), 0.5mg/ml (@ OD=10)
Conjugated Protein: Streptavidin, from *Streptomyces avidinii*
Storage Buffer: 10mM PBS (pH 7.4), 20% glycerol (v/v), 1% BSA
Working Dilution: 1:10 – 1:100 (application dependent, optimization might be required)

Storage

Store undiluted in storage buffer at 2-8° C. Stable for at least 4 months if stored as specified. DO NOT FREEZE.

Product Safety and Handling

This product is for R&D use only, not for drug, household, or other uses. Please review the safety datasheet (SDS) 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])

1. Spot one microlitre drops of a serial dilution of your protein (1ug-1ng) in PBS supplemented with 0.5 ug/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.
6. Incubate for 2 hours (or longer for increased sensitivity) with secondary gold conjugate diluted 1:10 (OD=0.3) times with blocking solution (0.2% Blocking Solution).
7. Wash 3x5 minutes as above.
8. Dry membrane and record data.
9. (OPTIONAL) Proceed with silver enhancement to improve sensitivity.

919 Fraser Drive Unit 11, Burlington, ON, L7L 4X8, Canada
Tel: 866-344-3954 Fax: 289-204-9100
www.cytodiagnostics.com

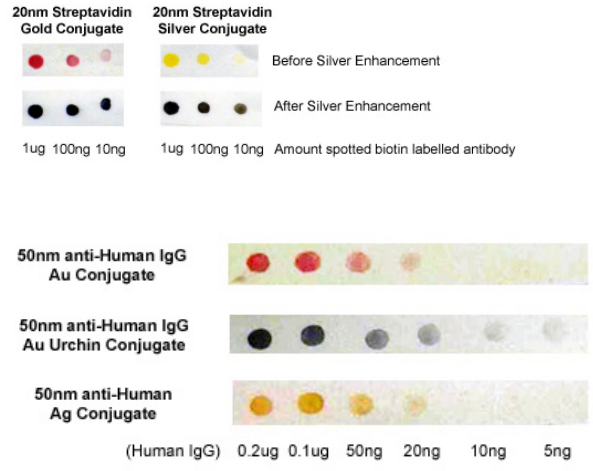


Figure 1. *Example dot-blot assay for Cytodiagnostics streptavidin gold conjugate (top left) and our streptavidin silver conjugate (top right) before and after enhancement using Cytodiagnostics silver enhancement kit for membranes. Bottom picture illustrates and highlights the difference in appearance (color) of 50nm anti-human IgG noble metal nanoparticle conjugates prepared using NHS-activated gold nanoparticles, NHS-activated gold nanourchins, and NHS-activated silver nanoparticles, 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 https://www.cytodiagnostics.com/

Catalogue Number	Volume / OD
ACC-XX-04	1 mL / 3 OD
ACC-XX-04-05	0.5 mL / 3 OD
ACC-XX-04-15	1 mL / 10 OD
ACC-XX-04-10	0.5 mL / 10 OD

*XX – indicates the size of the nanoparticle between 20 – 100 nm
Example: 20nm covalently conjugated streptavidin gold ACC-20-04 (1 mL at 3 OD)

919 Fraser Drive Unit 11, Burlington, ON, L7L 4X8, Canada
Tel: 866-344-3954 Fax: 289-204-9100
www.cytodiagnostics.com