CYTODIAGNOSTICS

PRODUCT DATA SHEET

Transferrin - Gold NanoUrchin Conjugate

Transferrin

Description

Transferrin conjugated gold nanourchins. Suitable for use in application such as cellular uptake studies. Can be detected using light microscopy (requires silver enhancement), darkfield microscopy, and electron microscopy.

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: Holo-Transferrin (Purified from Human Serum)
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.

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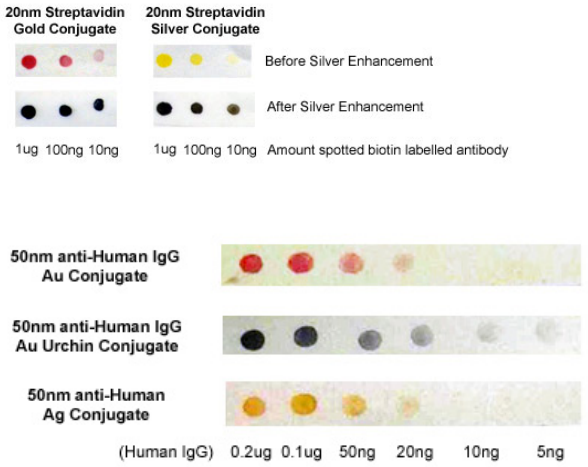

Figure 1. *Example dot-blot assay for Cytodiagnostics streptavidin gold conjugate (top left) and our streptavidin silver conjugate (top right) before and after enhancement using Cytodiagnostics silver enhancement kit for membranes. Bottom picture illustrates and highlights the difference in appearance (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

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