Gold Nanoparticles, Covalent Streptavidin
PRODUCT DATA SHEET

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Description

Abvigen Streptavidin covalently conjugated gold nanoparticles can be used for Secondary detection of biotinylated probes in assays such as lateral and vertical flow assays, immunoblotting, ELISA, light microscopy and electron microscopy applications. 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 and improved control over the final loading of protein onto the gold's surface. Streptavidin gold conjugates can be used for convenient and fast conjugation of any biotinylated ligand such as antibodies and oligonucleotides to the gold surface.

Product List

Cat No	Product Name	Concentration	Size
ABGN-5-CSA	Gold Nanoparticles, 5 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-10-CSA	Gold Nanoparticles, 10 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-15-CSA	Gold Nanoparticles, 15 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-20-CSA	Gold Nanoparticles, 20 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-30-CSA	Gold Nanoparticles, 30 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-40-CSA	Gold Nanoparticles, 40 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-50-CSA	Gold Nanoparticles, 50 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-60-CSA	Gold Nanoparticles, 60 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-70-CSA	Gold Nanoparticles, 70 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-80-CSA	Gold Nanoparticles, 80 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-90-CSA	Gold Nanoparticles, 90 nm, Covalent Streptavidin	OD 3	0.5 mL
ABGN-100-CSA	Gold Nanoparticles, 100 nm, Covalent Streptavidin	OD 3	0.5 mL

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Characteristics

Core size range: 5 nm ~ 100 nm

Optical density: OD=3

Conjugated protein: Streptavidin, from Streptomyces avidinii

Working dilution: 1:10 ~ 1:100 (application dependent, optimization might be required)

Supplied in: 1X PBS (pH 7.4), 20% glycerol (v/v), 1% BSA

Advantages

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

Applications

Gold conjugates are suitable for use in immunoblotting, light microscopy, and electron microscopy applications.

Standard Immunogold Dot-Blot Protocol

(Adapted from Moeremans et al.)

1. Spot one microlitre drops of a serial dilution of your protein (1 ug ~ 1 ng) 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 min using 1% (w/v) dry milk in 1X PBS at room temperature.

4. Incubate with primary antibody for 2 h at room temperature.

5. Wash membrane 3x5 min with blocking solution prepared as above.

6. Incubate for 2 h (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 min as above.

8. Dry membrane and record data.

9. (OPTIONAL) Proceed with silver enhancement to improve sensitivity.

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Storage and Stability

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

Storage of conjugate at working dilution may result in performance loss.

DO NOT FREEZE.

Notes

This product is for R&D use only, not for drug, household, or other uses.

Ordering Information

Website: www.abvigen.com

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