



## Gold Nanoparticles, Anti-Biotin

### PRODUCT DATA SHEET

## Gold Nanoparticles, Anti-Biotin

### Description

Anti-biotin IgG is an antibody produced in goat that binds specifically to the biotin molecule. Biotin is a small molecule that plays a large role in many processes for a wide range of organisms. Biotin is also extensively used in protein labelling due to its small size and relative stability when attached to a protein or antibody. The anti-biotin antibody is an ideal choice for detection of biotinylated proteins as well as purification and isolation. Affinity isolated anti-biotin antibody produced in goat and coupled to gold nanoparticles. Suitable for use in applications such as lateral flow, immunoblotting, light microscopy, and electron microscopy applications procedures for detection of biotinylated moieties.

### Product List

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



### **Characteristics**

Core size range: 5 nm ~ 100 nm

Optical density: OD=3

Conjugated antibody: Goat affinity purified anti-biotin antibody

Clonality: Polyclonal

Isotype: IgG

Specificity: Biotin

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

Storage buffer: 20 mM Tris (pH 8.0), 150 mM NaCl, 20% glycerol (v/v), 1% BSA

### **Advantage**

High sensitivity in assays

### **Applications**

Anti-Biotin Gold conjugates are suitable for detection of biotinylated moieties in lateral flow, 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 µg/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.



### **Storage and Stability**

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

**DO NOT FREEZE.**

### **Notes**

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

### **Ordering Information**

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