

# **PRODUCT DATA SHEET**

Anti-Human IgG F(ab')2 Fragment - 20nm Gold Conjugate (0.5ml, OD10)

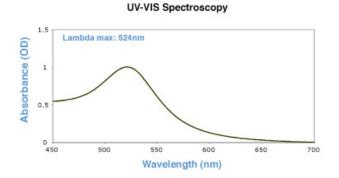
Catalog No. AC-20-09-10 Size: 0.5ml

#### Description

Affinity isolated anti-human antibody F(ab')2 fragment produced in goat and coupled to 20nm gold nanoparticle. Suitable for use in immunoblotting, lateral flow, light microscopy, and electron microscopy applications procedures for secondary detection of human antibody 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 Antibody: Affinity isolated anti-human antibody F(ab')2 fragment Clonality: Polyclonal Storage Buffer: 20mM Tris (pH 8.0), 150mM NaCl, 20% glycerol (v/v), 1% BSA Working Dilution: 1:30 – 1:300



#### **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 1:10 (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.

#### Storage

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

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# cYtodiagnostics

20nm Streptavidin Gold Conjugate	20nm Strept Silver Conj						
	• •		Before Sile	ver Enhar	ncement		
	• •	•	After Silve	er Enhand	ement		
1ug 100ng 10ng	1ug 100ng	10ng	Amount s	potted bio	otin labelleo	d antibody	
50nm anti-Huma Au Conjugat				۲			
50nm anti-Human IgG Au Urchin Conjugate					0	16	
50nm anti-Human Ag Conjugate		•		•			
(H	uman IgG)	0.2ug	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>