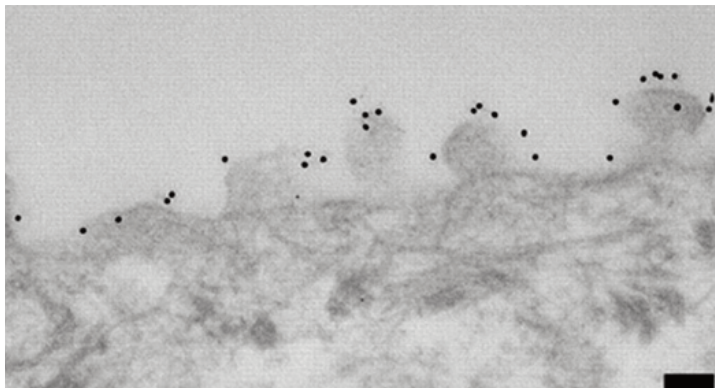


Specializing in **Secondary Antibodies** and **Conjugates**

## LM and EM Grade Colloidal Gold - Antibody Complexes

Colloidal gold reagents are available either for transmission and scanning electron microscopy (EM Grade 6, 12 & 18 nm) or for light microscopy and immunoblotting (LM Grade 4 nm). The EM Grade is distinguished from other commercial preparations by careful separation of monomeric particles from small aggregates using ultracentrifugation in density gradients. The resulting monomeric colloidal gold-protein complexes are suspended in sterile-filtered buffer containing stabilizers and a preservative. All particle sizes in the EM Grade category may also be used for light microscopy and immunoblotting by those who prefer to use particles larger than 4 nm.



**Figure 1.** Localization of MUC16 protein on human corneal epithelial cell cultures, using monoclonal Mouse Anti-Human MUC16 antibody (OC125; Dako) and 12 nm Colloidal Gold Donkey Anti-Mouse IgG (H+L) (**715-205-150; Jackson ImmunoResearch**), in stratified HCLE cell cultures. Scale bar: 0.4  $\mu$ m.

Timothy D. Blalock, *et al*; Functions of MUC16 in Corneal Epithelial Cells. *Invest. Ophthalmol. Vis. Sci.* 2007;**48(10)**:4509-4518.

Since signal intensity is relatively independent of particle size when silver enhancement is used, we offer 4 nm particles (LM Grade) because this size may penetrate tissues better than larger particles. The 4 nm size may be used for electron microscopy in studies that require smaller particles since they are relatively uniform in size (coefficient of variation less than or equal to 15%), though small aggregates are not removed from this grade. Therefore, our 4 nm particles should only be used for electron microscopy with the understanding that the presence of small aggregates may give misleading results.

A detailed protocol for silver enhancement is provided with all orders for LM Grade products. All reagents involved in the light-insensitive silver enhancement reaction can be prepared easily in the laboratory. However, those who wish to use commercially available silver enhancement kits can continue to do so. All LM Grade colloidal gold-protein complexes are freeze-dried in buffer with stabilizers and a preservative. After reconstitution, they may be frozen in aliquots for extended storage.

Antibody Description		4 nm Colloidal Gold	6 nm Colloidal Gold	12 nm Colloidal Gold	18 nm Colloidal Gold
Rabbit Anti-Bovine IgG (H+L)***		0.5 ml 301-185-003			
Donkey Anti-Chicken IgY (IgG) (H+L) (min X Bov, Gt, GP, Sy Hms, Hrs, Hu, Ms, Rb, Rat, Shp Sr Prot)	ML*	0.5 ml 703-185-155	0.3 ml 703-195-155	0.3 ml 703-205-155	0.3 ml 703-215-155
Rabbit Anti-Dog IgG (H+L)		0.5 ml 304-185-003			
Donkey Anti-Goat IgG (H+L)*** (min X Ck, Gt, Sy Hms, Hrs, Hu, Ms, Rb, Rat Sr Prot)	ML*	0.5 ml 705-185-147	0.3 ml 705-195-147	0.3 ml 705-205-147	0.3 ml 705-215-147
Donkey Anti-Guinea Pig IgG (H+L) (min X Bov, Ck, Gt, Sy Hms, Hrs, Hu, Ms, Rb, Rat, Shp Sr Prot)	ML*	0.5 ml 706-185-148	0.3 ml 706-195-148	0.3 ml 706-205-148	0.3 ml 706-215-148
Rabbit Anti-Horse IgG (H+L)***		0.5 ml 308-185-003			
Goat Anti-Human IgG (H+L) (min X Bov, Hrs, Ms Sr Prot)		1.0 ml 109-185-088	0.5 ml 109-195-088	0.5 ml 109-205-088	0.5 ml 109-215-088
Goat Anti-Human IgG, Fcγ Fragment Specific (min X Bov, Hrs, Ms Sr Prot)		1.0 ml 109-185-098			
Goat Anti-Human IgM, Fc5μ Fragment Specific		1.0 ml 109-185-043			
Goat Anti-Human Serum IgA, α Chain Specific		1.0 ml 109-185-011			
Donkey Anti-Mouse IgG (H+L) (min X Bov, Gt, GP, Sy Hms, Hrs, Hu, Rb, Shp Sr Prot)	ML*		0.3 ml 715-195-150	0.3 ml 715-205-150	0.3 ml 715-215-150
Goat Anti-Mouse IgG (H+L) (min X Hu, Bov, Hrs, Rb, Sw Sr Prot)	ML*	1.0 ml 115-185-146	0.5 ml 115-195-146	0.5 ml 115-205-146	0.5 ml 115-215-146
Goat Anti-Mouse IgG (H+L) (min X Hu, Bov, Hrs, Rb, Rat Sr Prot)**	ML*	0.5 ml 115-185-166	0.3 ml 115-195-166	0.3 ml 115-205-166	0.3 ml 115-215-166
Goat Anti-Mouse IgG Fcγ Fragment Specific (min X Hu, Bov, Hrs Sr Prot)	ML*	1.0 ml 115-185-071	0.5 ml 115-195-071	0.5 ml 115-205-071	0.5 ml 115-215-071
Goat Anti-Mouse IgG + IgM (H+L) (min X Hu, Bov, Hrs Sr Prot)		1.0 ml 115-185-068	0.5 ml 115-195-068	0.5 ml 115-205-068	0.5 ml 115-215-068
Goat Anti-Mouse IgM, μ Chain Specific (min X Hu, Bov, Hrs Sr Prot)	ML*	1.0 ml 115-185-075	0.5 ml 115-195-075	0.5 ml 115-205-075	0.5 ml 115-215-075
Donkey Anti-Rabbit IgG (H+L) (min X Bov, Ck, Gt, GP, Sy Hms, Hrs, Hu, Ms, Rat, Shp Sr Prot)	ML*	0.5 ml 711-185-152	0.3 ml 711-195-152	0.3 ml 711-205-152	0.3 ml 711-215-152
Goat Anti-Rabbit IgG (H+L) (min X Hu, Ms, Rat Sr Prot)	ML*	1.0 ml 111-185-144	0.5 ml 111-195-144	0.5 ml 111-205-144	0.5 ml 111-215-144
Goat Anti-Rat IgG (H+L) (min X Hu, Bov, Hrs, Rb Sr Prot)	ML*	1.0 ml 112-185-143	0.5 ml 112-195-143	0.5 ml 112-205-143	0.5 ml 112-215-143
Goat Anti-Rat IgG (H+L) (min X Hu, Bov, Hrs, Ms, Rb Sr Prot)**	ML*	0.5 ml 112-185-167	0.3 ml 112-195-167	0.3 ml 112-205-167	0.3 ml 112-215-167
Goat Anti-Rat IgM, μ Chain Specific (min X Hu, Bov, Hrs Sr Prot)	ML*	1.0 ml 112-185-075		0.5 ml 112-205-075	
Donkey Anti-Sheep IgG (H+L)*** (min X Ck, GP, Sy Hms, Hrs, Hu, Ms, Rb, Rat Sr Prot)	ML*	0.5 ml 713-185-147	0.3 ml 713-195-147	0.3 ml 713-205-147	0.3 ml 713-215-147
Goat Anti-Horseradish Peroxidase		1.0 ml 123-185-021	0.5 ml 123-195-021	0.5 ml 123-205-021	0.5 ml 123-215-021

\* ML = Multiple Labeling (see Multiple Labeling at [www.jacksonimmuno.com](http://www.jacksonimmuno.com) for an explanation).

\*\* Caution: See "Selection and Location of Affinity-Purified Antibodies" at [www.jacksonimmuno.com](http://www.jacksonimmuno.com) before selecting an antibody adsorbed against a closely related species.

\*\*\* Warning: BSA and dry milk may contain IgG which will react with this antibody. Use of BSA and/or dry milk to block or dilute this antibody may increase background and/or reduce secondary antibody titer.



Certified by BSI to ISO 9001:2008 under certificate number FM 545248.

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