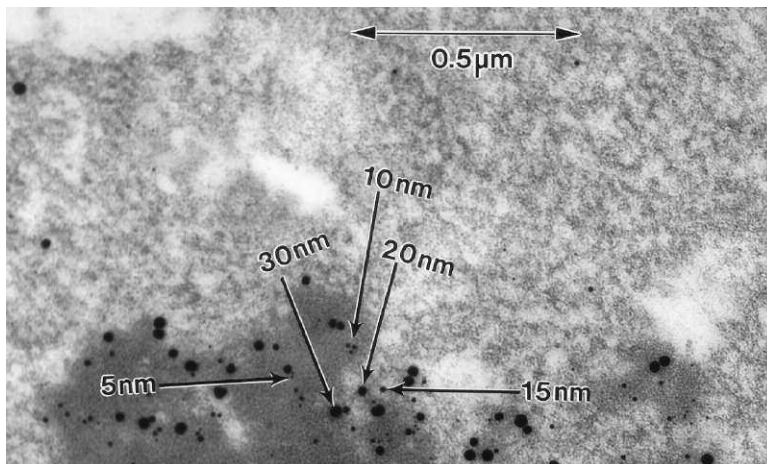


Gold Conjugates

Technical Information and Guidelines for use in Immunolabeling

These gold conjugates are made to the highest standards and specifications, yielding excellent results when correctly used. The guidelines are straightforward and intended for use with either light or electron microscopy immunolabeling applications. All gold conjugates are supplied in one of the two buffers listed below. Buffer constituents dictate the shelf life and storage conditions for the individual conjugates.



Electron microscopy (EM), light microscopy (LM) and blotting grade (BL) conjugates are supplied in the following buffer: 20mM Tris (tris-hydroxymethyl-aminomethane); 20mM sodium azide; 154mM NaCl; 1% glycerol; pH 8.2. Recipe to make 100ml: 0.242g (20mM) Tris + 0.9g (154mM) NaCl + ultrapure water to make 100ml. Adjust pH from 7.2 to 8.2 with 1N HCl or 1N NaOH. **Storage:** Stable for 1 year at 4°C; stability for 2+ years at -20°C. The conjugates demonstrate remarkable stability at ambient temperatures for up to 7 days. Repeat freezing and thawing is not recommended.

Ultra small (2nm) gold conjugates are supplied in the following buffer: 10mM Na₂HPO₄; 3mM KH₂PO₄; 123mM NaCl; 20mM sodium azide; pH 7.2. Recipe to make 100ml: 0.148g Na₂HPO₄ + 0.042g KH₂PO₄ + 0.72g NaCl + ultrapure water to make 100ml. Adjust pH from 7.2 to 8.2 with 1N HCl or 1N NaOH. **Storage:** Stable for 1 year at 4°C - **DO NOT FREEZE**. The conjugates demonstrate remarkable stability at ambient temperatures for up to 7 days.

Product Information

Each gold conjugate has a technical data sheet which indicates the following information: 1) Number of particles counted; 2) Mean particle diameter; 3) Coefficient of variation given as a percent; 4) Percent of single particles; 5) Percent of particles larger than triplets; and 6) Minimum detectable protein. The coefficient of variation is an important parameter in describing the relative distribution of gold particle sizes around the mean for a given batch. The coefficient of variation equals the standard deviation divided by the mean.

Normal Gaussian distributions work as follows: ±1 standard deviation describes 68% of the area under the curve; ±2 standard deviations describe 95% of the area under the curve; ±3 standard deviations describe 99.73% of the area under the curve. As an example, you have purchased a gold conjugate - Goat anti-Rabbit IgG (H+L), 10nm - having a mean particle diameter of 9.8nm with a **coefficient of variation of 4.1%**. First, the standard deviation needs to be determined. In this case it is 0.402nm (4.1% x mean particle diameter). Statistically, 68% of the particles will be from 9.40 to 10.20nm, 95% from 9.00 to 10.60nm and 99.73% from 8.60 to 11.00nm. A reliable size characterization has been determined for the batch.

Gold Colloid Sizes

Technical Data:



250

250nm
Extinction Coefficient: Not calculated
OD: 0.27 at 520nm - Particles/ml: 3.6x10⁸
Coefficient of Variation: <8%



200

200nm
Extinction Coefficient: Not calculated
OD: 0.3 at 520nm - Particles/ml: 7.0x10⁸
Coefficient of Variation: <8%



150

150nm
Extinction Coefficient: Not calculated
OD: 0.4 at 520nm - Particles/ml: 1.7x10⁹
Coefficient of Variation: <8%

Silver Colloid Sizes



100

100nm
Extinction Coefficient: 1.905E11 M-1cm-1
OD: 0.7 at 520nm - Particles/ml: 5.6x10⁹
Coefficient of Variation: <8%



80

80nm
Extinction Coefficient: 9.124E10 M-1cm-1
OD: 0.9 at 520nm - Particles/ml: 1.1x10¹⁰
Coefficient of Variation: <8%



60

60nm
Extinction Coefficient: 3.531E10 M-1cm-1
OD: 1.1 at 520nm - Particles/ml: 2.6x10¹⁰
Coefficient of Variation: <8%

50

50nm
Extinction Coefficient: 1.935E10 M-1cm-1
OD: 1.2 at 520nm - Particles/ml: 4.5x10¹⁰
Coefficient of Variation: <8%



40

40nm
Extinction Coefficient: 9.264E9 M-1cm-1
OD: 1.0 at 520nm - Particles/ml: 9.0x10¹⁰
Coefficient of Variation: <8%

30

30nm
Extinction Coefficient: 3.585E9 M-1cm-1
OD: 1.0 at 520nm - Particles/ml: 2.0x10¹¹
Coefficient of Variation: <8%



20

20nm
Extinction Coefficient: 9.406E8 M-1cm-1
OD: 1.0 at 520nm - Particles/ml: 7.0x10¹¹
Coefficient of Variation: <8%

15

15nm
Extinction Coefficient: 3.640E8 M-1cm-1
OD: 0.8 at 520nm - Particles/ml: 1.4x10¹²
Coefficient of Variation: <10%

10

10nm
Extinction Coefficient: 9.550E7 M-1cm-1
OD: 0.8 at 520nm - Particles/ml: 5.7x10¹²
Coefficient of Variation: <10%

5

5nm
Extinction Coefficient: 9.696E6 M-1cm-1
OD: 0.8 at 520nm - Particles/ml: 5.0x10¹³
Coefficient of Variation: <15%

2

2nm
Extinction Coefficient: 4.714E5 M-1cm-1
OD: 0.02 at 400nm - Particles/ml: 1.5x10¹⁴
Coefficient of Variation: Not determined

¹The data have been extrapolated from mean-free-path corrected Mie-theory calculations performed by Wolfgang Haiss at the University of Liverpool in 2004. The data have been experimentally verified in the diameter (d) range from 10-8-nm, and should not be used for d < 10nm. Surface effects may get increasingly important in this region.

Gold Conjugate Technical Information

Conjugate	Gold Particle Size	O.D.	Protein concentration $\mu\text{g/ml}$	Gold Particles/ml	Proteins/Particle
Immunoglobulin	5nm	3.0	36	1.7×10^{14}	3
Protein A	5nm	3.0	12	1.7×10^{14}	4
Streptavidin	5nm	3.0	20	1.7×10^{14}	5
Poly L Lysine	5nm	3.0	100	1.7×10^{14}	Unknown
Immunoglobulin	10nm	3.0	30	1.7×10^{13}	12
Protein A	10nm	3.0	10	1.7×10^{13}	16
Streptavidin	10nm	3.0	20	1.7×10^{13}	20
Poly-L-lysine	10nm	3.0	60	1.7×10^{13}	Unknown
Immunoglobulin	15nm	4.0	30	5.0×10^{12}	27
Protein A	15nm	4.0	10	5.0×10^{12}	36
Streptavidin	15nm	4.0	20	5.0×10^{12}	45
Poly-L-lysine	15nm	4.0	60	5.0×10^{12}	Unknown
Immunoglobulin	20nm	4.0	30	2.0×10^{12}	48
Protein A	20nm	4.0	10	2.0×10^{12}	64
Streptavidin	20nm	4.0	20	2.0×10^{12}	80
Poly-L-lysine	20nm	4.0	50	2.0×10^{12}	Unknown
Immunoglobulin	30nm	5.0	15	8.0×10^{11}	86
Immunoglobulin	40nm	5.0	10	4.5×10^{11}	150

Sample Fixation

All antigens and tissue react differently to different fixatives and preservation strategies (e.g. high pressure freezing, cryoultramicrotomy, etc.). As a result no one method will produce results all the time. Fixation is a very important step in determining the success of most immunolabeling procedures. Paraformaldehyde-based fixatives are most often used in concentrations from 0.5% up to 4% or higher. Often glutaraldehyde is added in concentrations typically from 0.1 to 0.5%. Cacodylate and the phosphate (Millonig, Sörensen) buffers are popular and the zwitterionic buffers such as HEPES or PIPES can be used as well for aldehyde fixation. The quenching of unreacted aldehydes is recommended by one of the following methods: 1) 0.05-0.1M ammonium chloride in buffer at 4°C for a few hours; 2) 0.1-0.2M glycine in buffer for a few hours; or 3) Sodium borohydride (0.1 mg/ml) in buffer for a few hours. Osmium tetroxide is not often used for tissues processed for immunolabeling. Berryman and Rodewald, 1990, J. Histochem, Cytochem., **38**: 159-170 describe an excellent method to attain membrane contrast without the use of osmium.

Resin Infiltration/Polymerization

The hydrophilic polar resins (Lowicryl K4M and K11M; L R White; Acrylic Embedding Resin (Prod. No. **18190**); L R Gold) have proven to be the best based on immunoreactivity. Cryoultramicrotomy methods are more difficult but yield excellent results when done correctly. The polar resins are partially water soluble and do not need to be dehydrated to 100%. Apolar hydrophobic resins (Lowicryl HM20 and HM23) are available for use as well. The epoxy resins, for most applications, are not recommended. Dehydration, infiltration and polymerization with polar and apolar resins can be done at room temperatures or in the cold (progressively lower temperature techniques). Polymerization of polar and apolar resins is done by UV for immuno applications; however, UV as well as oven cures can be done with Acrylic Embedding Resin (Prod. No. **18190**) and LR White.

Positive/Negative Controls

Positive as well as negative controls should be a part of all immunolabeling studies. Reagent and system dynamics require that controls be used to identify optimum signal-to-noise ratios (i.e. correct dilution of primary and secondary antibodies), viability of antibodies being used and necessary blocking steps or strategies. Tween 20® (Prod. No. 15713), Fish gelatin (45%) (Prod. No. 15717) and BSA (Prod. No. 15716) are good generic blocking reagents that can be mixed with antibody or rinse solutions.

Sample Labeling Protocol

Immunolabeling should be done in a humid chamber to protect against drying. The steps are:

1. Blocking step: 20-30 minutes at room temperature (recommend 0.1% Tween 20® and 0.1% Fish Gelatin to start. Add BSA 1-5% and the appropriate normal serum to reduce background if present).
2. Primary Antibody Incubation: 30-60 minutes at room temperature or 37°C.
3. Buffer Rinse: 30 minutes at room temperature with a buffer change every 5 minutes.

4. Gold Conjugate Incubation: 30-45 minutes in duration at room temperature or 37°C.
 5. Buffer Rinse: A method found beneficial to reduce background is to elevate the NaCl concentration to approximately 2.5M from 1.54mM. The change in molarity has a beneficial effect on background due to ionic interaction of the gold conjugate (net negative charge) and the substrate. Rinse for approximately 10 minutes and switch to water (ultrapure) for at least four changes of five minutes each.
 6. Post Stain: 2% uranyl acetate (aqueous or alcoholic) for 5 minutes, rinse well in ultrapure water and then stain for 5 minutes with lead (25ml DI water, dissolve one sodium hydroxide pellet and add 0.125g of lead citrate). Rinse well after lead staining.
- NOTE:** Elevated temperatures (i.e. 37°C) during incubations require less time. Less time helps to keep the sections on the grids. Nickel or gold grids should be used. All grids, regardless, should be cleaned prior to use (1N HCl; 100% ETOH; 100% Acetone - Dry in 60°C oven on filter paper).

Gold Conjugates for Electron Microscopy, Light Microscopy, and Blotted Proteins

Conjugates are available for the following immunolabeling applications:

Electron microscopy - cryoultramicrotomy, freeze fracture or plastic sections

Light microscopy - plastic, paraffin, cryostat or vibratome sections

Blotting – identification of proteins transferred to membranes (e.g. nitrocellulose, etc.)

Bioassay (Diagnostic) - Lateral flow tests

Electron Microscopy: 33 conjugated proteins available. Can be stored a 4°C for up to 1 year or at -20°C for up to 3 years

Light Microscopy: 25 conjugated proteins available. Can be stored a 4°C for up to 1 year or at -20°C for up to 3 years

Blotted Proteins: 13 conjugated proteins available. Can be stored a 4°C for up to 1 year or at -20°C for up to 3 years

Explanations of Abbreviations

(H+L) binds with heavy and light chain of primary antibody

(H) binds with heavy chain only of primary antibody

(AH) conjugate absorbed against human serum proteins

(RSP) conjugate absorbed against rat serum proteins

(MA) conjugate absorbed against mouse serum proteins

F(ab')₂ conjugate contains both Fab subunits (no Fc subunit) of the antibody

Bovine Serum Albumin

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15850	15850-1	5	15920	15920-1
10	15851	15851-1			
15	15852	15852-1			
20	15853	15853-1			

Cationic Colloidal Gold (poly-L-lysine)

Electron Microscopy			Light Microscopy			Blotted Proteins	
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml
5	15800	15800-1	5	15912	15912-1	20	15953-1
10	15801	15801-1					
15	15802	15802-1					
20	15803	15803-1					

Donkey anti-Sheep IgG (H+L)

Electron Microscopy			Light Microscopy			Blotted Proteins	
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml
5	15805	15805-1	5	15909	15909-1	20	15946-1
10	15806	15806-1					
15	15807	15807-1					
20	15808	15808-1					

Immunogold Stains

Goat anti-Biotin

Electron Microscopy			Light Microscopy			Blotted Proteins		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml	
5	15810	15810-1	5	15913	15913-1	20	15951-1	
10	15811	15810-1						
15	15812	15810-1						
20	15813	15810-1						

Goat anti-Guinea Pig IgG (H+L)

Electron Microscopy			Light Microscopy			Blotted Proteins		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml	
5	15785	15785-1	5	15908	15908-1	20	15948-1	
10	15786	15786-1						
15	15787	15787-1						
20	15788	15788-1						

Goat anti-Horseradish Peroxidase

Electron Microscopy		
Size in nm	¼ml	1ml
5	15965	15965-1
10	15966	15966-1

Goat anti-Human IgG (H)

Electron Microscopy			Light Microscopy			Blotted Proteins		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml	
5	15775	15775-1	5	15904	15904-1	20	15944-1	
10	15776	15776-1						
15	15777	15777-1						
20	15778	15778-1						

Goat anti-Human IgG (H+L)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15780	15780-1	5	15924	15924-1
10	15781	15781-1			
15	15782	15782-1			
20	15783	15783-1			
40	15784				

Goat anti-Human IgM (mu chain)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15975	15975-1	5	15925	15925-1
10	15976	15976-1			

Goat anti-Mouse IgG (H+L) (AH)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15750	15750-1	5	15918	15918-1
10	15751	15751-1			
15	15752	15752-1			
20	15753	15753-1			
30	15754	15754-1			
40	15754-4	15754-5			

Goat anti-Mouse IgG (H+L) (RSP)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15980	15980-1	5	15923	15923-1
10	15981	15981-1			

Goat anti-Mouse IgG F(ab')₂ (H) (AH)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15845	15845-1	5	15916	15916-1
10	15846	15846-1			

Goat anti-Mouse IgA+IgM+IgG

Electron Microscopy		
Size in nm	¼ml	1ml
10	15985	15985-1

Goat anti-Mouse IgM (mu chain specific)

Electron Microscopy			Light Microscopy			Blotted Proteins	
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml
5	15755	15755-1	5	15902	15902-1	20	15942-1
10	15756	15756-1					
15	15757	15757-1					
20	15758	15758-1					
30	15759	15759-1					

Goat anti-Mouse IgM F(ab')₂ (mu chain specific)

Electron Microscopy and Inn			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15760	15760-1	5	15917	15917-1
10	15761	15761-1			

Immunogold Stains

Goat anti-Mouse IgG (RSP)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15980	15980-1	5	15923	15923-1
10	15981	15981-1			

Goat anti-Rabbit IgG (H+L) (HSP)

Electron Microscopy and 2nm			Light Microscopy			Blotted Proteins	
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml
2	15860	15860-1	5	15900	15900-1	20	15940-1
5	15725	15725-1					
10	15726	15726-1					
15	15727	15727-1					
20	15728	15728-1					
30	15729	15729-1					
40	15729-4	15729-5					

Goat anti-Rabbit IgG F(ab')₂ (H+L) (HSP)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15730	15730-1	5	15914	15914-1
10	15731	15731-1			

Goat anti-Rat IgG (H+L) (MSP)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15770	15770-1	5	15921	15921-1
10	15771	15771-1			

Goat anti-Rat IgG (H+L) (HSP)

Electron Microscopy			Light Microscopy			Blotted Proteins	
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml
5	15765	15765-1	5	15905	15905-1	20	15945-1
10	15766	15766-1					
15	15767	15767-1					
20	15768	15768-1					
30	15769	15769-1					

Protein A

Electron Microscopy			Light Microscopy			Blotted Proteins	
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml
5	15820	15820-1	5	15910	15910-1	20	15949-1
10	15821	15821-1					
15	15822	15822-1					
20	15823	15823-1					

Protein G

Electron Microscopy			Light Microscopy			Blotted Proteins	
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml
5	15830	15830-1	5	15911	15911-1	20	15950-1
10	15831	15831-1					
15	15832	15832-1					
20	15833	15833-1					

Rabbit anti-Chicken IgG (H+L)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15970	15970-1	5	15926	15926-1
10	15971	15971-1			

Rabbit anti-Goat IgG (H+L)

Electron Microscopy			Light Microscopy			Blotted Proteins	
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml
5	15795	15795-1	5	15906	15906-1	20	15952-1
0	15796	15796-1					
15	15797	15797-1					
20	15798	15798-1					

Rabbit anti-Goat IgG (H+L) (HSP)

Electron Microscopy			Light Microscopy		
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml
5	15790	15790-1	5	15919	15919-1
10	15791	15791-1			

Streptavidin

Electron Microscopy			Light Microscopy			Blotted Proteins	
Size in nm	¼ml	1ml	Size in nm	¼ml	1ml	Size in nm	1ml
5	15840	15840-1	5	15907	15907-1	20	15947-1
10	15841	15841-1					
15	15842	15842-1					
20	15843	15843-1					

Unconjugated Gold and Silver - Gold/Silver Colloids (Sols)

Gold and silver colloids or sols are available in a number of different sizes. There are 14 different gold colloid sizes and 4 different silver sizes. The products are best stored at room temperature, although storage at 4°C is an option. However, temperatures too close to freezing will destabilize the sol, causing aggregation and product loss. All gold colloids are supplied at an OD of 1 at 530nm except for the 2nm particle size which is approximately OD 0.2 at 460nm.

Gold Colloids (Sols)

Gold Particle Size	Particles/ml	20ml Product No.	100ml Product No.	500ml Product No.
2nm	1.5 x 10 ¹⁴	15701-20	15701-1	15701-5
5nm	5.0 x 10 ¹³	15702-20	15702-1	15702-5
10nm	5.7 x 10 ¹²	15703-20	15703-1	15703-5
15nm	1.4 x 10 ¹²	15704-20	15704-1	15704-5
20nm	7.0 x 10 ¹¹	15705-20	15705-1	15705-5
30nm	2.0 x 10 ¹¹	15706-20	15706-1	15706-5
40nm	9.0 x 10 ¹⁰	15707-20	15707-1	15707-5
50nm	4.5 x 10 ¹⁰	15708-20	15708-5	15708-55
60nm	2.6 x 10 ¹⁰	15709-20	15708-6	15708-65
80nm	1.1 x 10 ¹⁰	15710-20	15708-8	15708-85
100nm	5.6 x 10 ⁹	15711-20	15708-9	15708-95
150nm	1.7 x 10 ⁹	15712-20	15709-10	15709-105
200nm	7.0 x 10 ⁸	15713-20	15709-11	15709-115
250nm	3.6 x 10 ⁸	15714-20	15709-12	15709-125

Silver Colloids (Sols)

Silver Particle Size	Particles/ml	20ml Product No.	100ml Product No.	500ml Product No.
20nm	7.0 x 10 ¹¹	15705-20SC	15705-1SC	15705-5SC
40nm	9.0 x 10 ¹⁰	15707-20SC	15707-1SC	15707-5SC
60nm	3.1 x 10 ¹⁰	15709-20SC	15708-6SC	15708-65SC
80nm	1.1 x 10 ¹⁰	15710-20SC	15708-8SC	15708-85SC

Silver Enhancement Kits - Protein and Nucleic Acid Stains UNICRYL™ Staining Kit for 1µm Sections - Blocking Agents - Capture Solution

Silver Enhancement Kit for Light and Electron Microscopy

Product No.	Kit Components	Storage Conditions
15718	15ml of Developer - 15ml of Enhancer	Store at 4°C or -25°C

A light insensitive kit designed for the amplification (10-100x) of gold label on grids or slides. When the kit components are mixed, metallic silver is deposited on the gold label.

NOTE: Enhancement times that do not exceed 2 minutes will greatly reduce nonspecific background. A second or third 2 minute enhancement will usually produce sharp, clean results.

Silver Enhancement Kit for Proteins and Nucleic Acids

Product No.	Kit Components	Storage Conditions
15719	250ml of Developer - 250ml of Enhancer	Store at 4°C or -25°C

A light insensitive kit designed for the amplification (10-100x) of gold labeled dots or blots on membranes. When the kit components are mixed, metallic silver is deposited on the gold labeled proteins or nucleic acids. The kit is designed for use with PROTOGOLD® and GENOGOLD® Staining Kits.

PROTOGOLD® - Protein Staining Kit

Product No.	Kit Components	Storage Conditions
15720	500ml of Protogold Sol - 5ml of Detergent	Store at 4°C - DO NOT FREEZE

The kit is intended for use with negatively charged membranes like nitrocellulose or polyvinylidene difluoride (PVDF). Up to 1µg per band or dots is recommended. The gold particles are negatively charged and suspended in a low pH solution. The stain is permanent and can be enhanced 10-100x with Prod. No. 15719 Silver Enhancement Kit. The kit will stain over 20 blots with high intensity.

Section Adhesive - Mounting Media BIOBOND™ - Tissue Section Adhesive

Product No.	Description	Storage Conditions
15715	Supplied in 20ml volumes and used as a 2% solution in acetone for coating slides. Use fresh solution each time.	Store at room temperature

Immunostain Moisture Chamber

This is a low-cost, high precision moisture chamber for ten slides. Every moisture chamber is divided into ten individual compartments with approximately one half inch (12.7mm) empty space between the compartments. When the chamber lid is closed, eight barrier dividers are placed into the empty spaces between the microscope slide compartments completely isolating all compartments. This is a very desirable feature when doing immunostaining.

The microscope slides are placed on four pedestal posts and four corner posts each 0.460 inch (11.5mm) high, thus raising the surface of the slides approximately one half-inch (12.7mm) off the floor to keep the slides away from the water below and making the slides easily retrievable (either by hand or by forcep).



The chamber is fabricated out of heavy-duty polystyrene with an air-tight design to keep moisture in. The chamber is designed to be stackable in order to save counter and/or refrigerator space

Available in both clear and black.

21049 Moisture Chamber, clear, each

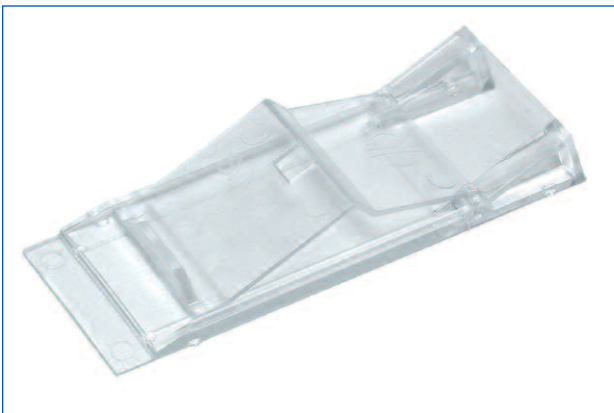
21049-B Moisture Chamber, black, each

Blocking Agents

Product No.	Description	Storage Conditions
15713	Tween 20®, 10ml	Store at room temperature
15717	Cold Water Fish Gelatin, 45%, 10ml	Store at room temperature

Microwave-assisted Immunostaining on Glass Slides

using the Sequenza™ Slide Rack and Coverplate™ system



Coverplate™



Sequenza™ Slide Rack

The Sequenza™ Slide Rack, holding 10 glass slides and Coverplates™, is a system designed for the immunolabeling of sections on glass slides. While originally designed for bench techniques, this system is uniquely suited for microwave-assisted applications. The Slide Rack holds glass slides covered with a Coverplate™. This combination forms a capillary gap between the slide and the plate. Reagent volumes, especially antibody, are greatly reduced using this versatile system. A reagent hopper forms the uppermost part of the plastic Coverplate™ allowing for easy dispensing of reagent into the capillary gap. Using a PELCO® Microwave Processor with a PELCO® ColdSpot™, rapid immunostaining of sections on glass slides is reliable and easy.

36105 Sequenza™ Slide Rack, each

36107 Coverplate™ Assemblies, pkg/25



PELCO® Immunostaining Pad made from PTFE

Can be used in the Microwave Processor, resists most chemicals and is easy to clean. Angle cut on one corner for orientation. 40 concave recesses, 4.5mm dia. x 1.5mm deep (.18 x .06").

The overall size of the pad is 41.91 x 69.85 x 6.35mm thick. Shown actual size.

10526-1 PELCO® Immunostaining Pad, made from PTFE, each



Menco Staining Pad for Grids, made from PTFE

The staining pad is 3.5" Dia. (8.9 cm) and fits inside a large glass Petri dish; when this dish is covered with Parafilm, evaporation is limited. Numbered holes. The pad was designed to save chemicals when processing small specimens.

10526 Menco (Immuno) Staining Pad, each

Reference: Menco B. Ph. M., 1992. Lectins Bind Differentially to Cilia and Microvilli of Major and Minor Cell Populations in Olfactory and Nasal Respiratory Epithelia, *Mic Res & Tech*, 23:181-199.



PELCO Prep-Eze™ Round Tissue Holders

The specimen holders accommodate 6 or 12 specimen batches from fixation through resin infiltration.

36135 Polypropylene Petri Dishes, pkg/100

36157 PELCO Prep-Eze™ 6-well Kit, each

36157-1 PELCO Prep-Eze™ 6-well Holder, each

36157-3 PELCO Prep-Eze™ 6-well ID Mat, pkg/3

36158 PELCO Prep-Eze™ 12-well Kit, each

36158-1 PELCO Prep-Eze™ 12-well Holder, each

36158-3 PELCO Prep-Eze™ 12-well ID Mat, pkg/3

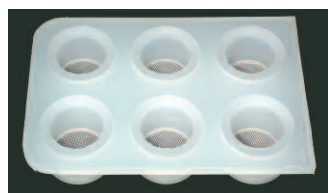
PELCO Prep-Eze™ Rectangular Wellplate Inserts

These rectangular polypropylene wellplate inserts have 6, 12, or 24 wells and will fit into the Corning Costar® Tissue Culture Plates (below right) which is the standard 6/12/24 wellplate design. A 420µm opening, polypropylene mesh is at the bottom of each of the insert wells. The outside dimensions of the wellplate inserts are: 81.3mm W x 123.5mm L x 2.4mm H (3.2" W x 4.86" L x .88" H).

Well dim. of 6-wellplate inserts: 24.1mm dia. x 22.3mm D (.95" dia. x .88" D)

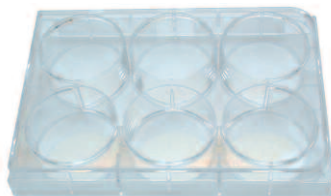
Well dim. of 12-wellplate inserts: 14.2mm dia. x 22.3mm D (.56" dia. x .88" D)

Well dim. of 24-wellplate inserts: 11.2mm dia. x 22.3mm D (.44" dia. x .88" D)



36168

PELCO Prep-Eze™ 6-wellplate Insert



36168-6

6 cavity Costar® Tissue Culture Plate



36170

PELCO Prep-Eze™ 12-wellplate Insert



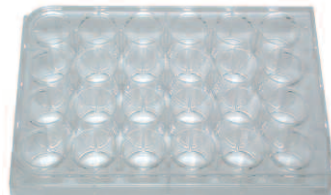
36170-12

12 cavity Costar® Tissue Culture Plate



36172

PELCO Prep-Eze™ 24-wellplate Insert



36172-24

24 cavity Costar® Tissue Culture Plate

36168 PELCO Prep-Eze™ 6-wellplate Insert, each

36170 PELCO Prep-Eze™ 12-wellplate Insert, each

36172 PELCO Prep-Eze™ 24-wellplate, Insert, each

Corning Costar® Tissue Culture Plates

Tissue Culture-treated Plates are designed for a wide range of applications including general cell growth experiments, cloning studies, virus isolation and in vitro testing.

Plate bottoms are of a uniform thickness, allowing for distortion-free observation. Alphanumeric coordinates are placed on the same focal plane as cell growth, for convenient referencing of cell position. Gripping edges make handling easier.

All plates have non-reversible covers with condensation rings to minimize evaporation and the risk of contamination.

Plates are made of optically clear, medical-grade polystyrene and are used for processing of tissue on the bench or in the microwave. The corresponding Wellplate Inserts are No. 36168 for the 6 cavity, No. 36170 for the 12 cavity, and No. 36172 for the 24 cavity.

Prod No.	No. of Wells	Well Dia.	Well Growth Area	Total Well Vol.	Working Volume	Pkg
36168-6	6	35mm	9.5 cm ²	15 ml	10 ml	cs/50
36170-12	12	22.6mm	3.8 cm ²	7 ml	3 ml	cs/50
36172-24	24	16mm	1.9 cm ²	3.4 ml	2 ml	cs/50

www.tedpella.com/embed_html/36120.htm

36168-8 6-Well Insert Replacement Mesh, pkg/30

36170-14 12-Well Insert Replacement Mesh, pkg/36

36170-24 24-Well Insert Replacement Mesh, pkg/48



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