

## PRODUCT INFORMATION

### UNCONJUGATED GOLD COLLOIDAL PARTICLES

**Catalog Number:** G-20-25

**Lot Number:**

**Expiration Date:**

**Particle Size:** 20nm (95% 20nm  $\pm$  5) - 25ml / vial

**HAuCl<sub>4</sub> Concentration:** 0.01%

**Buffer:** Potassium carbonate and sodium citrate, pH 6.5

**Storage:** **DO NOT FREEZE** ! Store at 5-8°C.

**Other Data:** Absorbance peak at 520nm. CONTAINS 0.02% SODIUM AZIDE AS A PRESERVATIVE. It is recommended that the excess or residual chemicals present in solution be removed:

1. Centrifuge at 10,000 X g for 5 minutes.
2. Siphon supernatant and use for conjugation.
3. Discard precipitate.

**EY LABORATORIES, INC.**

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(Outside CA only)

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**MATERIAL SAFETY DATA SHEET**

Effective Date: March 31, 2006

Revision 4

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**PRODUCT IDENTIFICATION**

Name: Colloidal gold and colloidal silver labeled proteins, enzymes, and ligands.

Catalog Number(s): G-2 to G-40, XGP-2, GP-01 to GP-8006, GAP-01, FGP-01, HGP-01, RGP-01, TGP-01, CCG-0001 to CCG-1018, GA-02, GAA-02, GAB-01 to GAB-02, FGA-02, HGA-02, GB-01 to GB-02, GE-01 to GE-03, GH-01 to GH-02, GM-01 to GM-2701, GAF-001 to GAF-2404, SA-02, SB-01, SH-01, SP-01 to SP-014.

Formula: Complex polypeptides, enzymes, lectins, antibodies, and ligands coupled to colloidal gold or silver particles. Also, unconjugated colloidal gold particles.

Synonyms: Protein A, Horseradish Peroxidase, Strept. Avidin, D-Biotin, Purified Antibodies, Bovine Serum Albumin, Fetuin, Ovomucoid, RNase, DNase I, Alkaline Phosphatase, Protein G, Monoclonal Antibodies, Lectins, Neoglycoproteins, Adriamycin, and Neomycin coupled to colloidal gold particles or silver colloidal particles.

**EMERGENCY INFORMATION**

EY Laboratories, Inc.  
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**EMERGENCY PHONE:****650-342-3296****HAZARDOUS COMPONENTS**

Specific protein or ligand as listed on the vial label. These solutions contain less than 0.1mg per ml. Biological activity of these proteins will vary. Although these materials are not generally considered to be hazardous they may cause allergic responses in sensitive individuals if inhaled or allowed to contact skin. Adriamycin and Neomycin are both used in cancer therapy and are cytotoxic.

**EXTREME CARE** should be used when handling either of these two items. The colloidal gold and colloidal silver solutions are potentially caustic and will temporarily discolor the skin. Most solutions contain 0.02% sodium azide as a preservative.

**HEALTH HAZARD INFORMATION**

EXPOSURE LIMITS: None established. The toxicological properties of these products have not been thoroughly investigated. Care should be taken when handling any of these materials.

EFFECTS OF OVEREXPOSURE: Any of these proteins may cause acute localized eye, skin, or mucous membrane irritation. Some sensitive individuals may develop a chronic allergic reaction with exposure.

ROUTES OF EXPOSURE: Skin, eye, and mucous membrane contact. Care should be taken to avoid the formation of aerosols when handling any of these solutions.

**PHYSICAL CHARACTERISTICS**

APPEARANCE: Light burgundy to purple liquid. 2nm - pale yellowish-brown liquid.

SOLUBILITY: All liquids are completely miscible in water and biological buffers.

**FIRE AND EXPLOSION HAZARDS**

EXTINGUISHING MEDIA:

SPECIAL FIRE FIGHTING PRECAUTIONS:

NOTE:

Not considered to be a fire hazard.

Water spray or CO<sub>2</sub>.

None required.

Most solutions contain 0.05% sodium azide as a preservative. Azide may react with lead and copper plumbing to form explosive metal azides. Flush with copious amounts of water when disposing material in the sink.

**REACTIVITY DATA**

STABILITY:

Stable. Decomposition products are not known to be hazardous.

HAZARDOUS POLYMERIZATION:

INCOMPATIBILITY:

Will NOT occur.

None known. (Lead and copper may react with sodium azide).

**SPILL / LEAK PROCEDURES**

MATERIAL RELEASE / SPILL:

Avoid contact with liquid. Clean up spill with a paper towel soaked in household bleach. Do not allow solutions to dry on environmental surfaces. Wash affected area with detergent after the area has been treated with bleach.

WASTE DISPOSAL:

Incinerate, autoclave, or dispose of paper waste in accordance with all Local, State, and Federal regulations. Due to the small quantities of material involved these products are generally not considered to be environmental hazards. All of these proteins are fully biodegradable.

**EMERGENCY FIRST AID PROCEDURES**

May be harmful if swallowed, inhaled, or allowed to absorb through the skin. Wash contacted area with water for 15 minutes. If inhaled remove to fresh air. Report exposure to the appropriate safety official. The gold and silver sols may be caustic. Consult a physician if irritation occurs, if there is any indication of an allergic response such as watering eyes, sneezing, or difficulty breathing, or if eye contact occurs.

**SPECIAL HANDLING PRECAUTIONS**

VENTILATION:

No special ventilation is required but it is recommended to handle these reagents in a fume hood when possible.

EYE PROTECTION:

Safety goggles or safety glasses with side shields are recommended.

RESPIRATORY PROTECTION:

Recommended as a safety precaution. An approved respirator may be required for those individuals already known to be sensitive to these materials.

PROTECTIVE GLOVES:

Required when handling any of these materials.

**SPECIAL PRECAUTIONS**

This material is for research and experimental application only. It is not intended for food, drug, household, agricultural, or cosmetic use. All materials should be handled only by technically qualified individuals experienced with working with potentially hazardous chemicals. The above information is correct to the best of our knowledge. The user should make independent decisions regarding completeness of the information, based on all sources available. EY Laboratories, Inc. shall not be held liable for any damage resulting from handling or contact with the above product.

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