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BioMag®Plus Goat anti-Mouse IgG Particles & BioMag®Plus Goat anti-Mouse IgG Antibody Coupling Starter Kit

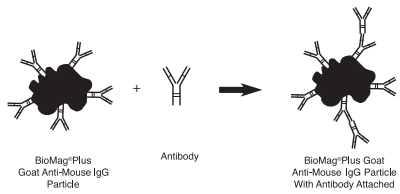
Catalog Numbers: 86021, 86020

DESCRIPTION

BioMag® and BioMag®Plus superparamagnetic microparticles are utilized in the magnetic separation of cells, organelles, proteins, immunoglobulins, nucleic acids, and many other types of molecules in biological and non-biological systems. The irregular shape of BioMag® and BioMag®Plus particles affords a much greater surface area than that of the same size spherical particles. This large surface area results in high binding capacities, allowing efficient target capture with minimal amounts of particles. Additionally, their greater than 90% iron oxide content allows for faster magnetic separations, especially on automated high throughput platforms.

BioMag®Plus particles are similar to conventional BioMag® particles with the distinctions of having reduced size distribution and that all BioMag®Plus particles are offered in kits as the principle component.

Bangs offers the BioMag®Plus Goat anti-Mouse Antibody Coupling Kit for the attachment of antibodies to BioMag®Plus superparamagnetic particles. The contents of the kit are sufficient for five coupling reactions. To use the kit for smaller or larger samples, adjust all volumes in a proportional manner.



BioMag®Plus Goat anti-Mouse IgG particles are a suspension of BioMag®Plus particles approximately 1.5µm in size that have goat anti-Mouse IgG antibody covalently attached. The suspension is supplied at 1 mg/ml in phosphate buffered saline (pH 7.4) with EDTA and sodium azide added. After shaking vigorously or vortexing, BioMag®Plus Goat anti-Mouse IgG particles are ready to use.

One ml(mg) of BioMag®Plus Goat anti-Mouse IgG will bind > 0.20mg of mouse IgG. However, since the specificity of goat anti-Mouse antibodies for IgG subclasses may vary, researchers must determine the suitability of this product for their particular antibody.

BioMag®Plus Goat anti-Mouse IgG particles are suitable for enzyme immunoassays that utilize a mouse IgG primary monoclonal antibody and in magnetic cell sorting methods that utilize mouse monoclonal antibodies against a specific cell population. For additional information on the use of this product in cell separation, please see Technical Data Sheet 528, *BioMag® and Cell Sorting*.

CHARACTERISTICS

Mean Diameter:	~1.5µm
Particle Concentration:	1 mg/ml
Binding Capacity:	1ml (1mg) will bind > .20mg of mouse IgG

MATERIAL

Material Supplied

- BioMag®Plus Goat anti-Mouse IgG particles (1 mg/ml in PBS (pH 7.4), 1mM EDTA, 0.1% (w/v) NaN_3): 25ml
- Coupling / Wash Buffer (1x PBS, 1% (w/v) BSA, 0.1% (w/v) NaN_3, 1mM Na2EDTA): 250ml
- 15mL conical centrifuge tubes: 5 tubes
- BioMag® MultiSep Magnetic Separator

Material Required

- Monoclonal antibody
- Mixer (rotator)

PROCEDURE

Researchers are advised to optimize the use of particles in any application, as procedures designed by other manufacturer's may not be ideal.

Coupling Procedure

1. Transfer 5ml aliquot of BioMag®Plus Goat anti-Mouse IgG particles to the 15ml centrifuge tube.
2. Magnetically separate the particles until the solution has cleared.
3. Using a pipette or vacuum aspiration method, carefully remove the supernatant and discard.
4. Remove the container from the magnetic field. Add an equal amount of Wash Buffer to the particles and mix by inversion to resuspend the BioMag®Plus Goat anti-Mouse IgG particles.
5. Repeat Steps 2-4 two more times (for a total of 3 washes).
6. After the last wash, resuspend the particles to the original volume.
7. Determine and add an appropriate amount of monoclonal antibody required for coupling based on the mass of goat anti-Mouse IgG. Generally, antibody concentrations of 20-100 µg/mg of particles have been used successfully.
8. Mix by inversion and place tube on a mixer (rotator). Incubate the sample at room temperature for a minimum of 2 hours or as long as 16 hours when incubated at 2-8°C.

Washing and Diluting Coupled Particles

1. After the incubation, remove the sample from the mixer and magnetically separate the particles from the solution. Carefully remove the supernatant and discard.
2. Resuspend the particles to the coating volume with cold Wash Buffer. Return the flask to a rotator and mix for 30 minutes at room temperature.
3. Repeat Steps 1-2 three more times without the 30 minute mixing step.
4. After the last wash, magnetically separate the BioMag®Plus particles from solution and resuspend the particles with cold Wash Buffer to the volume desired. Store the coupled BioMag®Plus particles at 4˚C until further testing.

STORAGE AND SAFETY

Storage Store at 4˚C. Freezing, drying, or centrifuging particles may result in irreversible aggregation and loss of binding activity.

Safety This particle suspension contains sodium azide. Sodium azide may react with lead and copper plumbing to form explosive metal azides. Upon disposal of material, flush with a large volume of water to prevent azide accumulation. Please consult the Safety Data Sheet for more information.

This product is for research use only and is not intended for use in humans or for *in vitro* diagnostic use.

ORDERING INFORMATION

Cat. #	Description	Sizes
86021-50	BioMag®Plus Goat anti-Mouse IgG Particles	50ml
86020-1	BioMag®Plus Goat anti-Mouse Particle Antibody Coupling Starter Kit	1 kit

TO ORDER

In The U.S. Call: 1(800) 523-2575 • (215) 343-6484
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