

RayBio anti-Human IgG Magnetic Beads

Catalog #: 801-101

User Manual

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Caution:

Extraordinarily useful information enclosed



ISO 13485 Certified

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RayBiotech, Inc.

RayBio Goat anti-Human IgG Magnetic Beads Protocol

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Please read the entire manual carefully before starting your experiment

I. General Description

RayBio's superparamagnetic nanoparticles are coupled with a biomolecule, such as Goat anti-Human IgG, and are utilized in the magnetic separation and isolation of human antibodies from serum or human antibody-labeled components. The particles have a large surface area with high capture efficiencies.

II. Storage Buffer

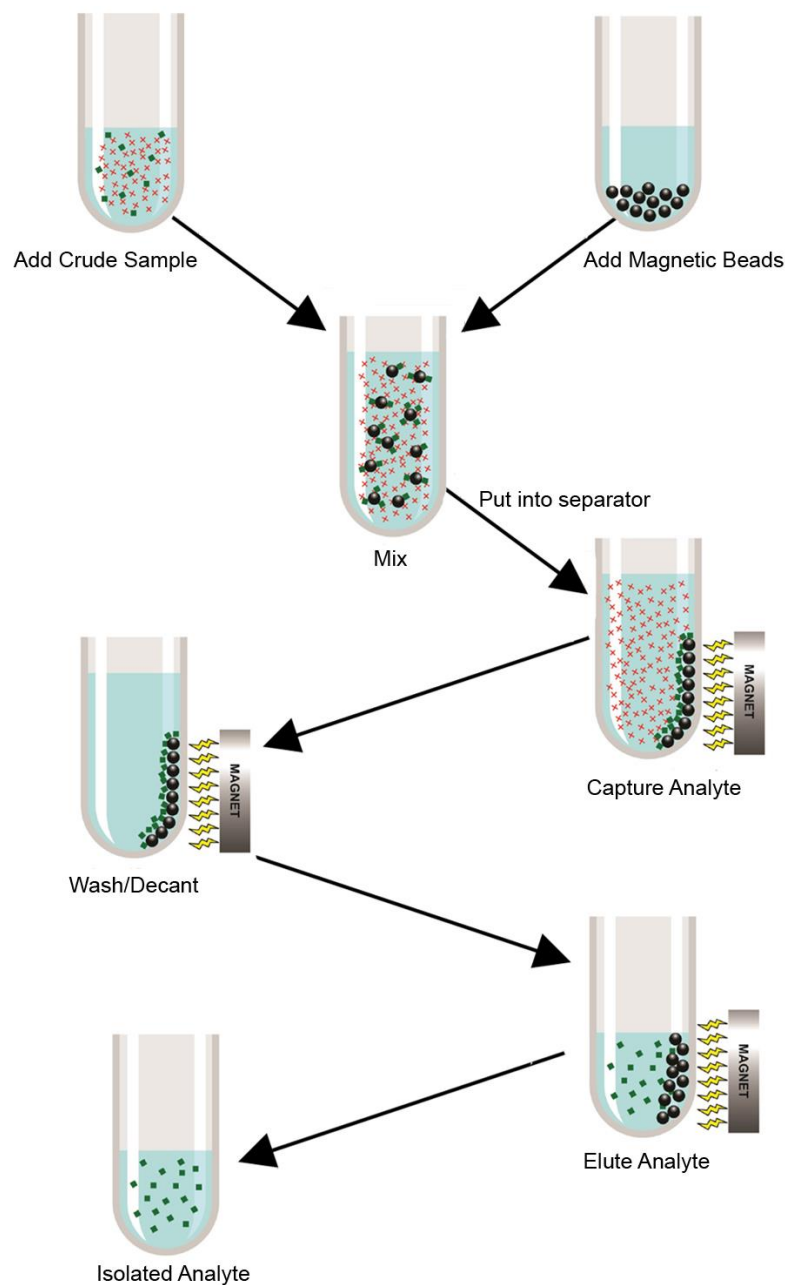
Reagent is stored in tris buffered saline pH 7.4 with proteins and preservatives.

III. Storage and Stability

The Goat anti-Human IgG Magnetic Beads should be stored in the refrigerator (4-8°C). The reagent must be allowed to reach room temperature (20-25°C) before use and may be used until the expiration date on the box. Do not freeze, dry, or centrifuge the beads as they may result in loss of binding activity and aggregation.

IV. How it Works

Goat anti-Human IgG magnetic beads are incubated with the human antibody solution and then separated by magnets. After the unbound particulates are washed from the beads, the bound antibodies are eluted from the beads using the elution buffer. The beads are then magnetically separated from the eluted solution, and the eluted antibodies are removed manually.



V. Warning and Precautions

- This product is for in vitro research use only, do not use in vivo.
- Prior to use, ensure that the product has not expired by verifying that the date of use is prior to the expiration date on the label.
- Ensure that reagent bottle caps are tight after each use to prevent drying of reagents.
- Mistakes in handling the test can also cause errors. Possible sources for such errors can be: Inadequate storage conditions of the test kit (or reagents), incorrect pipetting sequence or inaccurate volumes of the reagents, too short incubation times, and/or short magnetic separation times.

VI. Characteristics

Particle Mean Diameter	~0.5 μm
Particle Concentration	5 mg/ml
Binding Capacity	≥ 0.2 mg human IgG/mg of beads

VII. Antibody Isolation

A. Materials Provided

Goat anti-human IgG magnetics beads, 5 mg/ml

B. Additional Materials Required

1. Binding/Wash Buffer: TBS - 0.05% Tween 20 detergent
2. Elution Buffer: 0.1 M Glycine pH 2.0, 5 mL
3. Neutralization Buffer: 1M Tris pH 8.0, 1 mL
4. Micro-pipettes with disposable plastic tips (10-200 and 200-1000 μL)
5. 1.5 mL or 2.0 mL Eppendorf or microcentrifuge vials
6. Timer
7. Rotator
8. Distilled or deionized water
9. Vortex mixer
10. Solo or Multi-6 Microcentrifuge Separator (catalog number: 801-205/801-206)

C. Procedures

1. Add 100 μL (0.5 mg) of beads to 1 mL of binding buffer in each tube to wash particles.
2. Magnetically separate using a magnetic separator for 2 minutes or until the supernatant is clear.
3. Remove the supernatant and wash once more by adding 1 mL of binding buffer.
4. Repeat step 2 and remove the supernatant.
5. Resuspend beads by adding 450 μL of binding buffer.
6. Add 50 μL of serum or cell culture supernatant to the beads.

Note: Sample volume can be modified according to user preference. If the sample volume is < 500 μL , dilute it to a final volume of 500 μL with Binding/Wash Buffer.

7. Gently mix using vortex or rotator for 30 minutes.
8. Magnetically separate using a magnetic separator for 2 minutes or until the supernatant is clear.
9. Remove supernatant and wash with 0.5 mL Binding/Wash buffer to remove unbound proteins.
10. Repeat steps 8 and 9 once more. Remove supernatant.
11. Add 100 μL of elution buffer to beads and mix well.
12. Incubate at room temperature for 10 minutes with occasional gentle mixing or vortex.
13. Separate for 2 minutes and remove the eluent to a new tube containing 15 μL of neutralization buffer.

This product is for research use only.



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