General Limited Warranty: Gold Standard Diagnostics warrants the products manufactured by the Company, against defects and workmanship when used in accordance with the applicable instructions for a period not to extend beyond the product's printed expiration date. **Gold Standard Diagnostics makes no other warranty, expressed or implied. There is no warranty of merchantability or fitness for a particular purpose.**

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Date this User Guide is effective: 10JAN2023

Version: 02

AbraMag® Goat anti-Mouse IgG Magnetic Beads

Product No. 544022 (1 mL)
544020 (4 mL)

1. General Description

The Gold Standard Diagnostics' superparamagnetic nanoparticles are coupled with a biomolecule, such as Goat anti-Mouse IgG, and are utilized in the magnetic separation and isolation of mouse antibodies from serum or mouse antibody-labeled components. The beads have a large surface area with high capture efficiencies.

2. Storage Buffer

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

3. Storage and Stability

The Goat anti-Mouse IgG Magnetic Beads should be stored in the refrigerator (2-8°C). The reagent must be allowed to reach room temperature (20-25°C) before use and may be used until the last day of the month as indicated by the expiration date on the vial. Do not freeze, dry, or centrifuge the beads as they may result in loss of binding activity and aggregation.

4. Test Principle

Goat anti-Mouse IgG magnetic beads are incubated with the mouse 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.

5. Warning and Precautions

- This product is for in vitro research use only, do not use in vivo.
- Do not freeze the reagent.
- 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.

6. Characteristics

Particle mean diameter: ~ 0.5 µm
Particle concentration: 5 mg/mL
Binding capacity: ≥ 0.1 mg mouse IgG/mg of beads

A. Materials Provided

Goat anti-mouse IgG magnetic beads, 5 mg/mL

B. Additional Materials (not provided with the kit)

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 (PN 472270; PN 472260)

C. Antibody Isolation Procedure

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 when the supernatant is clear.
3. Remove and discard the supernatant. Wash once more by adding 1 mL of binding buffer.
4. Repeat step 2. Remove and discard 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 supernatant volume is < 50 µL, dilute 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 when the supernatant is clear.
9. Remove and discard supernatant.
10. Add 500 µL Binding/Wash buffer to wash the beads and remove unbound proteins.
11. Repeat steps 8 and 9 once more.
12. Add 100 µL of elution buffer to beads and mix well.
13. Incubate at room temperature for 10 minutes with occasional gentle mixing or vortex.
14. Separate for 2 minutes. Remove and transfer the eluent to a new tube containing 15 µL of neutralization buffer.

AbraMag® Magnetic Beads are superparamagnetic, non-aggregating iron oxide particles (or 'microspheres') for sample prep, or for capturing / purifying targets such as proteins, antibodies, DNA/RNA, exosomes, and *E. coli*. **AbraMag**'s design enables faster binding kinetics, with high sensitivity & selectivity, in both manual and automated biomedical and research applications.

Superior yield, purity, quality, and value over the leading competitors.

- **Multiple Advantages** – Over conventional methods (columns, centrifugation).
- **Superior Performance** – We have designed them to *match or outperform the competition*.
- **Superior Capacity and Yield** – High binding capacity for rapid and efficient target purification.
- **Superior Purity** – Stable, pre-blocked particles provide clean purification even from complex samples.
- **Customizable** – Custom beads and coupling services available.