TrueBlot® Streptavidin Magnetic Beads – S000-18

Rockland's TrueBlot® Magnetic Beads are uniform, non-aggregating, super-paramagnetic beads consisting of a ferric oxide core functionalized with various silane groups. The super-paramagnetic nanoparticles are coupled with a biomolecule, such as Streptavidin, and are specifically designed, tested and quality controlled for magnetic purification of biotin-labeled components using manual or automatic platforms. Streptavidin magnetic beads are stable, pre-blocked beads with high binding capacity that provide rapid and efficient biomolecule purification from complex samples.

I. PRODUCT CONTENTS

Contents	Catalog Number	Size
TrueBlot® Streptavidin Magnetic Beads	S000-18-2	2 mL
TrueBlot® Streptavidin Magnetic Beads	S000-18-5	5 mL

II. PRODUCT CHARACTERISTICS

Bead Mean Diameter	**0.5 µm**
Bead Concentration	**5 mg/mL**
Binding Capacity	**≥ 60 µg biotin/mg of beads**

III. STORAGE AND STABILITY CONDITIONS

The Streptavidin Magnetic Particles should be stored in the refrigerator (2-8°C). The beads must be allowed to reach room temperature (20-25°C) before use. Do not freeze, dry, or centrifuge the particles as they may result in loss of binding activity and aggregation. Do not use after the printed expiration date.

IV. INTRODUCTION

TrueBlot® Streptavidin magnetic beads can be used for immunoprecipitation (IP)of antigens (using biotinylated antibodies) from a wide variety of sources and to co-immunoprecipitate interaction complexes using biotinylated antibodies. Streptavidin magnetic beads can also be used for protein-protein interaction in pull-down assays using biotinylated "bait" proteins and for isolation of biotin-labeled DNA-protein complexes from cell or tissue extracts. These beads are also applied for capturing single-stranded biotinylated DNA oligos and for isolation of biotinylated PCR products. Streptavidin magnetic beads are incubated with the biotin-labeled solution and then separated by magnets. After the unbound particulates are washed from the beads, the bound biotin is eluted from the beads using the elution buffer. The particles are then magnetically separated from the eluted solution, which is removed manually.

V. SAFTEY INSTUCTIONS

Reagent is stored in Phosphate buffered saline, tween detergents, and 0.05% sodium azide as preservatives.

VI. REQUIRED EQUIPMENT AND REAGENTS

- Magnetic Separators (Cat # TMS-15-50; TMS-06; TMS-32)
- Mixer for tilting and rotation of tubes
- Binding/wash buffer: TBS-0.05% Tween 20 or PBS-0.05% Tween
- Elution Buffer: 0.1 M Glycine pH 2.0
- Neutralization Buffer: 1M Tris-HCl pH 8.0
- 1.5 mL or 2.0 mL Eppendorf or microcentrifuge vials
- Timer
- Distilled or deionized water

VII. GENERAL CONSIDERATIONS

- Do not centrifuge, dry or freeze the magnetic beads, as this can cause the beads to aggregate and lose the binding capability.
- 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.
- Use a mixer that provides tilting and rotation of the tubes to ensure that the beads do not settle in the tube.
- Avoid air bubbles (foaming) during pipetting.
- Use recommended volume of beads.
- Carefully follow the recommended volumes and incubation times.
- Mistakes in handling the test can also cause errors. Possible sources for such errors can be:

  Inadequate storage conditions of the test reagents, incorrect pipetting sequence or inaccurate volumes of the reagents, too short incubation times, and/or short magnetic separation times.

VIII. ANTIBODY ISOLATION PROTOCOL

- Add 100 µL (0.5 mg) of beads to 1 mL of binding buffer in each tube to wash beads.
- Magnetically separate using a magnetic separator for 2 minutes or when the supernatant is clear.
- Remove the supernatant and wash once more by adding 1 mL of binding buffer.
- Magnetically separate the beads using a magnetic separator for 2 minutes or when the supernatant is clear and remove the supernatant.
- Resuspend beads by adding 450 µL of binding buffer.

- Add 50µL of serum or cell culture supernatant to the particles.

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

IX. RELATED PRODUCTS

General Use Magnetic Beads	Catalog #	Size (ml)
Trueblot® Anti-mouse IgG Magnetic beads (5 mg/ml)	00-1811-20 00-1811-50	2 5
Trueblot® Anti-rabbit IgG Magnetic beads (5 mg/ml)	00-1800-20 00-1800-50	2 5
Trueblot® Anti-Goat IgG Magnetic Beads (5mg/ml)	00-1844-20 00-1844-50	2 5
Trueblot® Protein G Magnetic Beads (5mg/ml)	PG00-18-2 PG00-18-5	2 5
TrueBlot® Protein A Magnetic Beads (5mg/ml)	PA00-18-2 PA00-18-5	2 5
Trueblot® Biotin Magnetic Beads (5mg/ml)	S000-18-2 S000-18-5	2 5
Magnetic Bead IP/Purification Kits	**Catalog #**	**Size (tests)**
Trueblot® Protein A Magnetic Beads IP/Co-IP Kit	KBA-PA00-18	20
Trueblot® Protein G Magnetic Beads IP/Co-IP Kit	KBA-PG00-18	20
Genomic DNA Magnetic Beads Purification Kit	KOA0912	100

Magnetic Separators	Catalog #	Size (tests)
15/50 ml Tube Magnetic Separator	TMS-15-50	6/3
Multi-6 Microcentrifuge Tube Magnetic Separator	TMS-06	6
Multi-32 Microcentrifuge Tube Magnetic Separator	TMS-32	16