CYTODIAGNOSTICS

PRODUCT DATA SHEET

BSA Removal Kit for Nanoparticle Conjugation

Cat. # SR-08-01

Description

Cytodiagnostics BSA Removal Kit for Nanoparticle Conjugation is ideal for preparing an antibody sample for conjugation to nanoparticles or microspheres.

Antibody providers commonly add BSA, glycerol, sodium azide, and other components in an effort to stabilize antibody preparations. However, these components negatively impact the conjugation efficiency of an antibody to nanoparticles and microspheres resulting in poor performing conjugates in downstream applications. It is thus necessary for these components to be removed prior to conjugation for optimal performance.

Cytodiagnostics BSA removal kit is a simple to use kit that can be used for purification of any type of antibody from common storage buffers followed by resuspension in a buffer suitable for conjugation to nanoparticles or microspheres.

Kit Components

- BSA Removal Solution– 1 ml
- Antibody Re-suspension Buffer – 1 ml

Storage

All components of this kit should be stored at 4°C. If stored unopened and as specified, Cytodiagnostics BSA Removal Kit for Nanoparticle Conjugation is stable for at least 3 months.

Factors to Consider Prior To Purification of Your Antibody

Concentration of the antibody and BSA in your sample

This kit efficiently removes BSA present up to a concentration of 0.5% (w/v) from antibody preparations at concentrations of 0.5 mg/ml – 10 mg/ml. If the BSA concentration is above 0.5% dilute the sample with distilled water until a final concentration of 0.5% is reached.

Although this kit removes >95% of BSA present in the original antibody sample, which is sufficient for most applications, additional purity can be achieved by repeating the procedures described in “Part I.” below twice.

Buffer Composition

This kit efficiently removes BSA from antibodies supplied in common buffers such as PBS, MES, borate, and Tris as long as the pH is in the range of 6.0-8.0. Other components such as NaCl do not have an effect on the purification efficiency. The kit is also compatible with glycerol concentrations of up to 20%.

Procedure for Removal of BSA From a Sample

Part 1.

1. Transfer 100 µl of your sample to be purified into a 1.5 ml microcentrifuge tube.
2. Add 80 µl of BSA Removal Solution to the sample containing your antibody to be purified.
3. Incubate for 10 minutes at room temperature.
4. Centrifuge the vial at 13,000 x *g* for 15 minutes in a standard microcentrifuge.
5. Carefully remove the supernatant taking care not to disturb the pellet containing your antibody.
6. Resuspend the pellet with 100 µl of Antibody Re-suspension Buffer.
7. Place the sample on ice and proceed with conjugation to your nanoparticles or microspheres.

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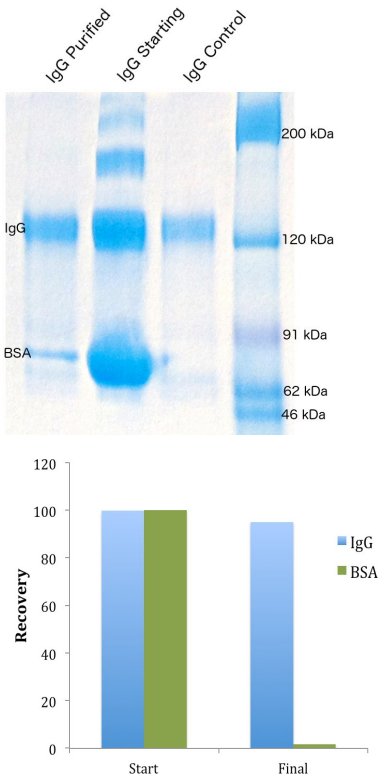

Figure 1. *Purification of a commercial antibody supplied at a concentration of 1 mg/ml supplemented with 0.5% (w/v) BSA. Note the almost complete removal of BSA after purification.*

Precautions and Disclaimer

These products are for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet available online at www.cytodiagnostics.com for information regarding hazards and safe handling procedures.

Ordering Information

For ordering call 866-344-3954 or visit us online.

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