Protein A EIA Kit

Sensitive & Reliable Detection

Staphylococcus aureus Protein A is a 42 kDa cell wall constituent that is characterized by its binding affinity to the Fc portion of some immunoglobulins, especially the IgG class. The IgG binding domain (domain B) consists of three anti-parallel alpha-helices, the third of which is disrupted when the protein is complexed with Fc. Protein A is commonly used to purify antisera and in commonly used immunodetection and visualization techniques. Protein A participates in a number of protective biological functions including anti-tumor, toxic and carcinogenic activities, thus necessitating the removal of potential Protein A contaminants from antibody preparations for therapeutic use.

Protein A EIA Kit

ADI-900-057 1 x 96 wells

The Protein A EIA kit is a sensitive, accurate, and reproducible sandwich assay to measure natural and recombinant Protein A residuals in monoclonal antibody preparations. The Protein A EIA kit has been extensively validated in humanized IgG preparations to ensure accurate recovery and sensitivity.

Product Features & Benefits

- Superior sensitivity
  - Detect 1ppm Protein A residuals in human IgG preparations
  - Lower standard curve range versus conventional methods
- Flexible detection
  - Detect 4 different Protein A constructs
  - Efficiently detect natural and recombinant Protein A variants (Fig. 1)
- Great recovery and reproducibility
  - 84% - 101% recovery in the presence of human IgG (Fig. 2)
  - Reproducible results with 4-5%CV
- Time and money savings
  - Fast results in < 3 hours
  - Low cost per test

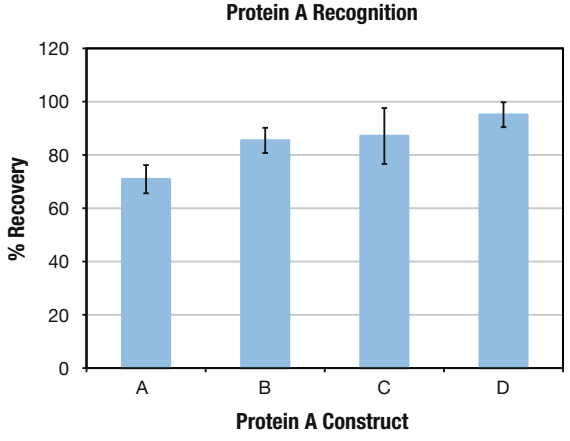

FIGURE 1: Assay recognition of different Protein A constructs, post boiling. Resulting concentrations were interpolated from kit standard curve. Percent recovery calculated by dividing observed concentration by expected concentration (A & B: n=9, C & D: n=12, graphical data represents statistical mean +/- 1 SD).

ID	Protein A Constructs	ID	Protein A Constructs
A	Natural Protein A from *S. Aureus*	C	Recombinant Cys-Protein A from *E. coli*
B	Recombinant Protein A from *E. coli*	D	Recombinant alkaline-resistant Protein A variant from *E. coli*

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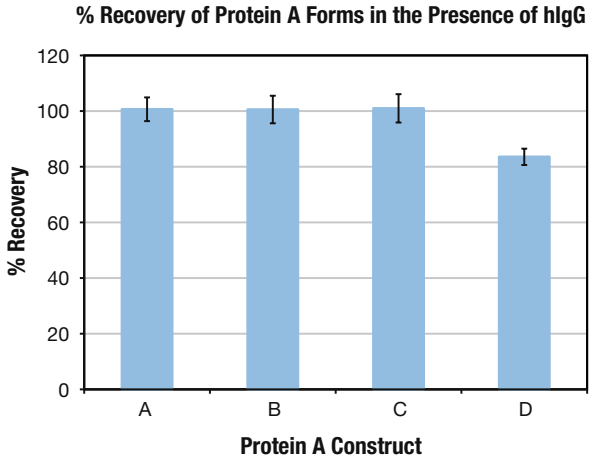

FIGURE 2: Recovery of Protein A in the presence of human IgG, post sample preparation. Percent recovery calculated by dividing the observed recovery in the presence of human IgG by the observed recovery from assay buffer. (A & B: n=9, C & D: n=12, graphical data represents statistical mean +/- 1 SD).

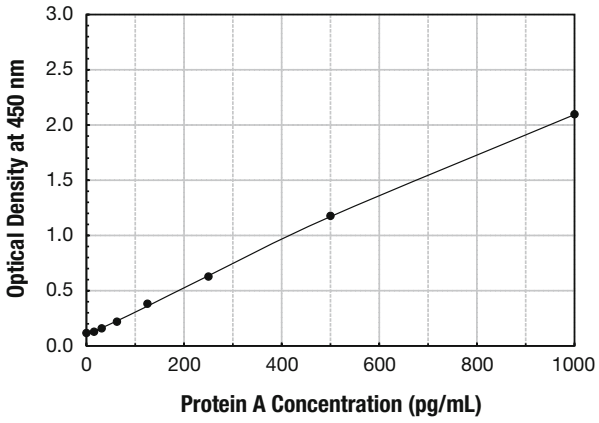

FIGURE 3: Standard curve.

Principle

1. Samples and standards are added to wells coated with a chicken antibody specific for Protein A. The plate is then incubated.
2. The plate is washed; leaving only bound Protein A on the plate. A yellow solution of biotinylated chicken antibody to Protein A is then added. This binds the Protein A captured on the plate. The plate is then incubated. The plate is washed to remove excess antibody. A blue solution streptavidin-HRP conjugate is added to each well, binding to the biotinylated antibody, which is attached to the Protein A. The plate is again incubated.
3. The plate is washed to remove excess streptavidin-HRP conjugate. TMB Substrate solution is added. The substrate generates a blue color when catalyzed by the HRP.
4. Stop solution is added to stop the substrate reaction. The resulting yellow color is read at 450 nm. The amount of signal is directly proportional to the level of Protein A in the sample.

Ordering Information

Product	Prod. No.	Size
Protein A EIA Kit	ADI-900-057	1 x 96 wells

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