PRODUCT DATA SHEET

Protein A ELISA kit

ADI-900-057

Most sensitive (9.01 pg/ml) colorimetric ELISA for monitoring residual contamination.

Product Number/Sizes

ADI-900-057	96 wells

- Highly sensitive measurement, detecting as little as 9.01 pg/ml (<1 ppm) of Protein A residuals in purified humanized mAb preparations
- Ensures accurate results as it recognizes several constructs of Protein A
- High throughput format with results in < 3 hours for up to 37 samples in duplicate
- Cost-effective solution compared to other technologies, providing a lowercost-per-test
- Useful for contamination analysis and measurement of Protein A variants in monoclonal antibody preparations

The Protein A EIA kit is a colorimetric immunometric enzyme immunoassay kit with results in < 3 hours. Absorbance is read at 450 nm. Ultra-sensitive quantification (< 1 ppm) of Protein A residuals in purified humanized monoclonal antibody preparations. This kit recognizes four different Protein A constructs.

Product Details

SENSITIVITY:	9.01 pg/ml (range 15.63 - 1,000 pg/ml)
ASSAY TIME:	<3 hours
APPLICATIONS:	ELISA, Colorimetric detection
APPLICATION NOTES:	For the quantitative determination of residual protein A contamination in protein A purified IgG preparations from any species.
WAVELENGTH:	450 nm
SPECIES REACTIVITY:	Species independent
SHIPPING:	Blue Ice Not Frozen
LONG TERM STORAGE:	+4°C
CONTENTS:	Microtiter plate, Conjugate, Antibody, Assay buffer 13, Wash buffer concentrate,Standard, TMB Substrate, Stop solution 2
SCIENTIFIC BACKGROUND:	*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.
TECHNICAL INFO/PRODUCT NOTES:	Assay recognition of different Protein A constructs from natural Protein A from *S. aureus* (M), recombinant Protein A from *E. coli* (R), recombinant Cys-Protein A from *E. coli* (G), and recombinant alkaline-resistant Protein A variant from *E. coli* (S) were tested and the resulting concentrations were interpolated from kit standard curve and displayed in the figure provided. **Application Notes:** *Comparison of Assay Methods for the Detection of Residual Protein A in Biological Therapeutics*
REGULATORY STATUS:	RUO - Research Use Only

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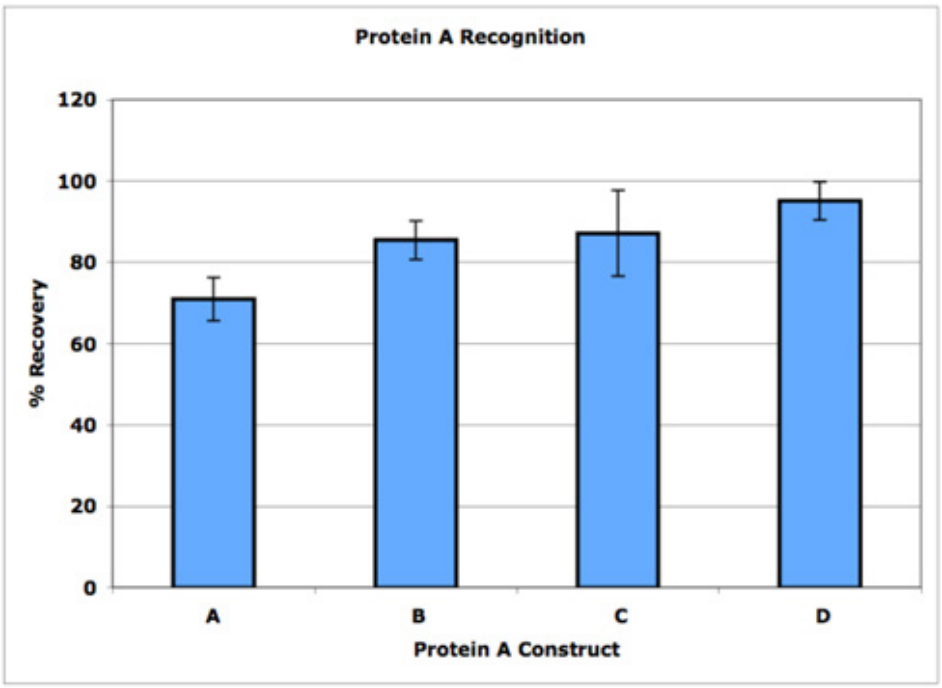

Assay recognition of different Protein A constructs, post boiling. Resulting concentrations were interpolated from kit standard curve. Percent recovery calculated by dividing observed concentration by expected concentration. A: Natural Protein A from *S. aureus* (Millipore), n=9; B: Recombinant Protein A from *E. coli* (Repligen), n=9; C: Recombinant Cys-Protein A from *E. coli* (GE), n=12; and D: Recombinant alkaline-resistant Protein A variant from *E. coli* (MabSelet SuRe from GE), n=12; graphical data represents statistical mean +/- 1 standard deviation.

Product Literature References

An enhanced regeneration strategy to improve microbial control and prolong resin lifetime for Protein A resin in large-scale monoclonal antibody (mAb) purification T. Zhou, et al. J. Biotechnol. **289** 118 (2019)

Indirect monitoring of protein A biosynthesis in E.coli using potentiometric multisensor system D. Kirsanov, et al. Sensors and Actuators B: Chemical **238** 1159 (2017)

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