

# ELISA Plates

Micro Test Plates for Immunoanalytics



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Comprehensive analyses for the detection of defined substances are critical in research, development and diagnostics. One of the analyses most commonly used is the Enzyme-Linked Immunosorbent Assay (ELISA). With this method, even small concentrations of a range of substances (proteins, peptides, antibodies, hormones etc.) can be detected and quantified from complex solutions. ELISAs are frequently carried out in polystyrene micro test plates in either manual or automated processes, making use of the inherent property of biomolecules to adhere to the polystyrene surface by passive adsorption. However, the strength of passive adsorption depends on the molecular characteristics of the analyte, e.g. their size and charge.

Sarstedt offers ELISA plates with two different surfaces for a wide range of applications in immunoanalytics:

- **Medium Binding**  
The medium binding surface is hydrophobic and generally suited for the adsorption of predominantly hydrophobic and larger/flexible molecules.
- **High Binding**  
Sarstedt's high binding ELISA plates feature a defined hydrophilic surface optimized for the adsorption of more hydrophilic or small/inflexible molecules.

Fig. 1 shows the adsorption of proteins with different properties in the evaluation of an insulin ELISA (Fig. 1a) and a human IgG ELISA (Fig. 1b). As shown, Sarstedt's High Binding ELISA plate is particularly suited for the adhesion of small molecules like insulin. Depending on the IgG concentration, the detection of human IgG is possible with both ELISA surfaces.

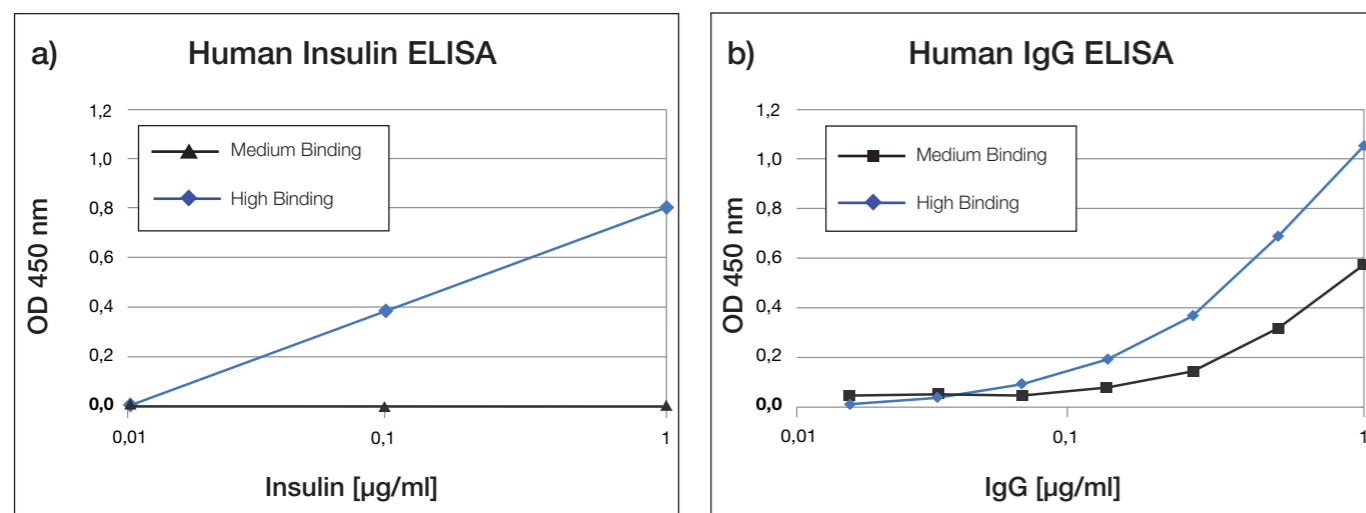


Fig. 1: a) Human insulin was coated on transparent Sarstedt Medium and High Binding plates. The adsorbed volume was verified by an indirect ELISA. b) Transparent Sarstedt Medium and High Binding plates were coated with human IgG. The volume of adhered IgG was established by means of a direct ELISA.

Fig. 2 shows the results of an IL8 Sandwich ELISA. Sarstedt's High Binding ELISA plates render equivalent adsorption properties compared to a competitor High Binding ELISA plate. Likewise, the results of this Sandwich ELISA reveal that Sarstedt's High Binding ELISA plate is more suitable for this application than the Sarstedt Medium Binding ELISA plate.

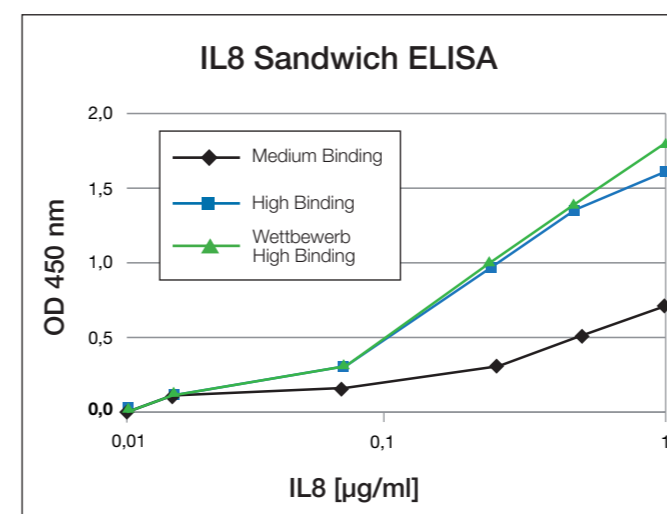


Fig. 2: For the detection of IL8, the capture antibody was adsorbed to the surface of the transparent Sarstedt Medium and High Binding ELISA plates and to a competitor transparent High Binding ELISA plate. The amount of IL8 detected correlates with the amount of adsorbed, functional capture antibodies.

Considering the multitude of possible analytes, Sarstedt recommends testing of both Sarstedt ELISA surfaces before establishing a new ELISA procedure.

Material, Certification and Identification

A consistent surface quality is a basic requirement for the reproducibility of ELISA experiments. Therefore, Sarstedt's ELISA plates are produced from high-quality polystyrene and certified as follows:

- **Non-pyrogenic**  
Based on the LAL test as per the FDA guideline for medical devices, detection limit < 0.06 EU/ml
- **Non-cytotoxic**  
In accordance with DIN EN ISO 10993 – "Biological Evaluation of Medical Devices – Part 5 Test on In-vitro Cytotoxicity"

Ordering Information

| Order No.   | Description                     | Surface | Base shape | Color       | Packaging       |
|-------------|---------------------------------|---------|------------|-------------|-----------------|
| 82.1581.100 | ELISA Plate                     | Medium  | LI         | transparent | 25 bag/50 case  |
| 82.1581.200 | ELISA Plate                     | High    | LI         | transparent | 25 bag/50 case  |
| 82.1581.110 | ELISA Plate                     | Medium  | LI         | white       | 25 bag/50 case  |
| 82.1581.210 | ELISA Plate                     | High    | LI         | white       | 25 bag/50 case  |
| 82.1581.120 | ELISA Plate                     | Medium  | LI         | black       | 25 bag/50 case  |
| 82.1581.220 | ELISA Plate                     | High    | LI         | black       | 25 bag/50 case  |
| 82.1582.100 | ELISA Plate                     | Medium  | U          | transparent | 25 bag/50 case  |
| 82.1582.200 | ELISA Plate                     | High    | U          | transparent | 25 bag/50 case  |
| 82.1583.100 | ELISA Plate                     | Medium  | V          | transparent | 25 bag/50 case  |
| 82.1583.200 | ELISA Plate                     | High    | V          | transparent | 25 bag/50 case  |
| 82.1584     | Lid for ELISA/Micro Test Plates | -       | -          | transparent | 25 bag/100 case |

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- DNA-free
- EEO sterilised
- Self-drying within the tube
- Identification code\* for correct matching
- Individually wrapped, sterile, or with tamper-proof closure

\*Global article ID number - serial number (GG79) (GG) Germany. The code is printed on the side both in plain text and in a QR code format on the tube and used for a correct match (A/N, N/A, 90-000 and 90-000 only).

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Order No.: 10.670

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SARSTEDT AG & Co.  
P.O. Box 12 20  
D-51582 Nümbrecht  
Phone +49 2293 305-0  
Fax +49 2293 305-3992  
export@sarstedt.com  
www.sarstedt.com