

# 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.

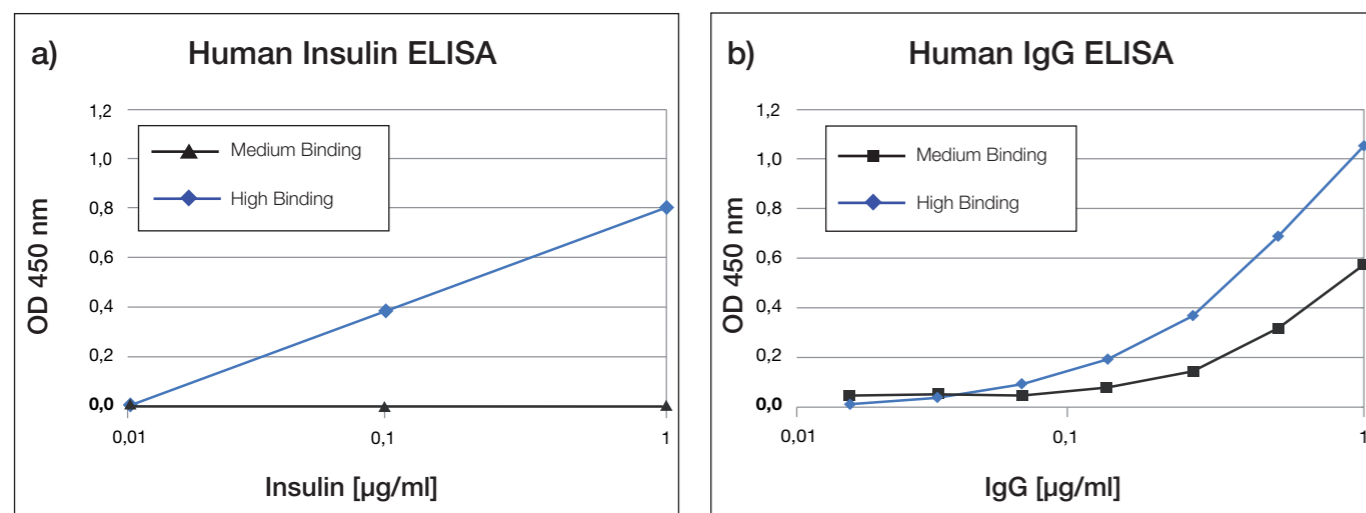


Fig. 1: a) Human insulin was coated on transparent Sarstedt Medium and High Binding plates. The adsorbed volume was verified by an indirect ELISA. b) Transparent Sarstedt Medium and High Binding plates were coated with human IgG. The volume of adhered IgG was established by means of a direct ELISA.

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.

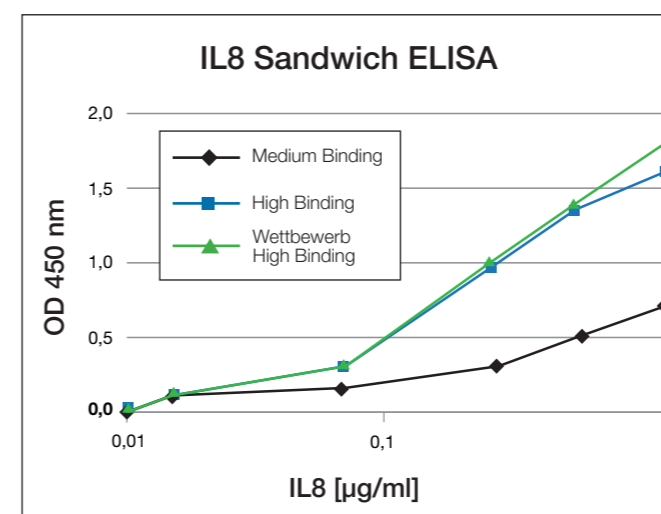


Fig. 2: For the detection of IL8, the capture antibody was adsorbed to the surface of the transparent Sarstedt Medium and High Binding ELISA plates and to a competitor transparent High Binding ELISA plate. The amount of IL8 detected correlates with the amount of adsorbed, functional capture antibodies.

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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**Forensic Swab**  
in a transport tube with ventilation membrane **NEW!**

**Maximum purity for optimal safety in presalytics**

The new Forensic Swabs from Sarstedt are suited for the collection of both reference samples and evidence of DNA traces of crime scenes. Apart from Forensic Swabs with polyurethane foam, our range also includes a swabbing foam option. The Forensic Swab L has an extended handle for the hygienic collection of reference samples. The Forensic Swab SC with extended stem is ideal for the collection of evidence in small vessel tubes.

The ventilation membrane in the tube base enables self-drying of the swab within the tube. Drying of the swab in the tube, i.e. outside the tube, as in standard systems is unnecessary, thereby avoiding the risk of mix-up and contamination.

Stringent purity conditions in the production process and a special EEO sterilisation method developed by Sarstedt to comply with the requirements of forensic analysis ensure the absence of DNA contamination.

- 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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Centrifugation up to 20,000 x g\*
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Minimises DNA loss  
SelfSeal locking cap design  
Centrifugation up to 20,000 x g\*  
CET up to 25,000 x g†

\*Refer to normal volume with double-deionised water (low surface tension), 20°C, 60 min. fixed angle rotor.

PCR Performance Tested Quality  
✓ DNA-free ✓ DNase/RNase-free ✓ PCR inhibitor-free

**SARSTEDT**

Order No.: 10.670

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