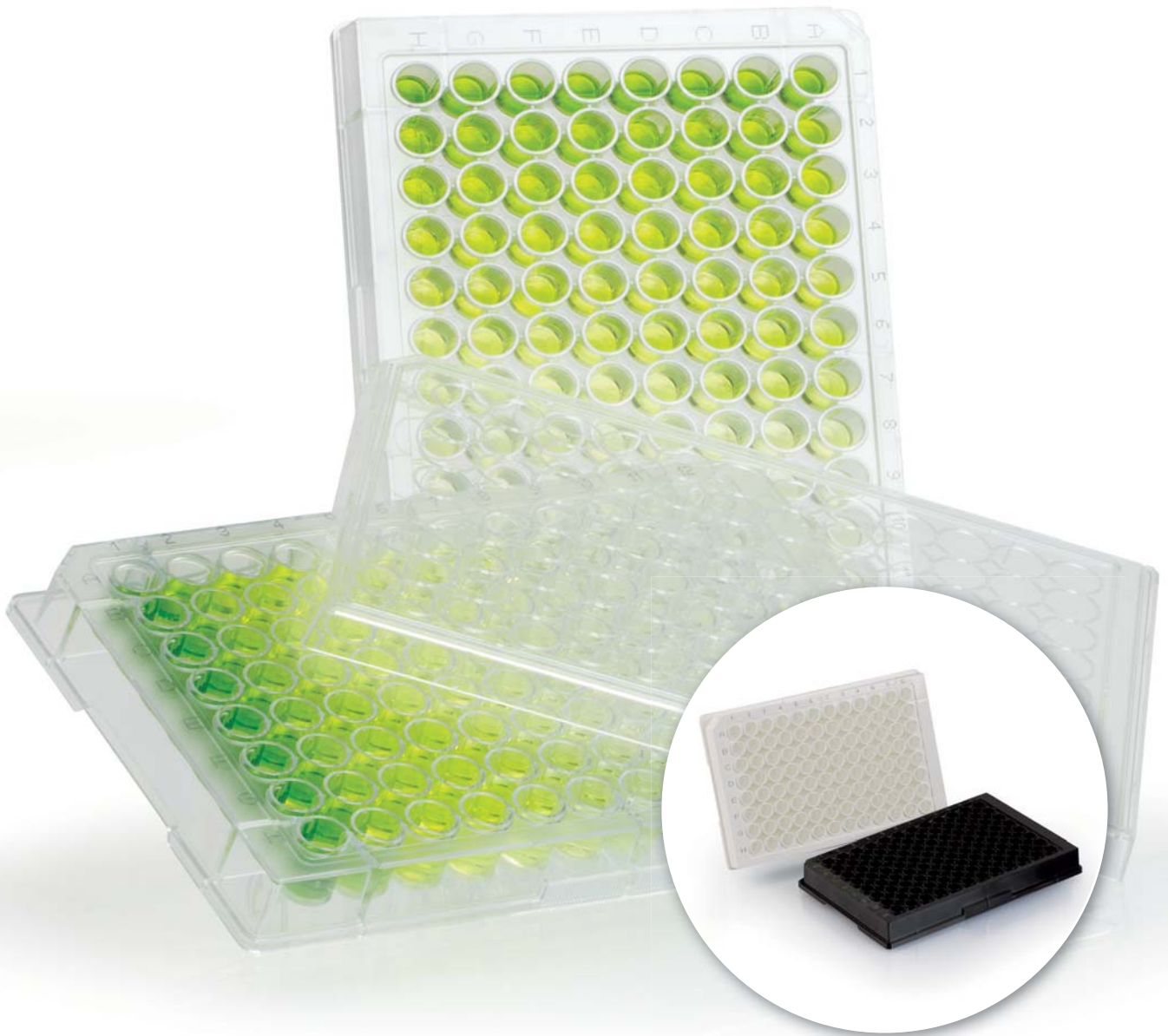


# ELISA Plates

Micro Test Plates for Immunoanalytics



## Micro Test Plates for Immunoanalytics

Complex analyses to detect defined substances have a key role in research, development and diagnostics. One of the most widely used analysis methods is the Enzyme-Linked Immunosorbent Assay (ELISA). This method can be used to detect and quantify even minute concentrations of various substances (proteins, peptides, antibodies, hormones etc.) in complex solutions. ELISAs are often carried out in small volumes in polystyrene micro test plates that can be processed manually or automatically. This utilizes the natural adherence of biomolecules to the polystyrene surface by passive adsorption. It should be noted that the strength of the passive adsorption depends on the molecule properties of the analyte, e.g. size and charge.

SARSTEDT produces ELISA plates with two different surfaces to ensure a wide usage in immunoanalytics:

- **Medium Binding**  
The Medium Binding surface is hydrophobic and is generally suited for the adsorption of predominantly hydrophobic and larger/flexible molecules.
- **High Binding**  
SARSTEDT High Binding ELISA plates have a defined hydrophilic surface that has been optimized for the adsorption of hydrophilic and small/rigid molecules.

As an example of the adsorption of proteins with different properties, Figure 1 shows the evaluations of an insulin ELISA (Fig. 1a) and a human IgG ELISA (Fig. 1b). It is clear from these that the SARSTEDT High Binding ELISA plate is particularly to be recommended for binding small molecules such as insulin.

By contrast, both ELISA surfaces can be used to detect human IgG depending on the IgG concentration.

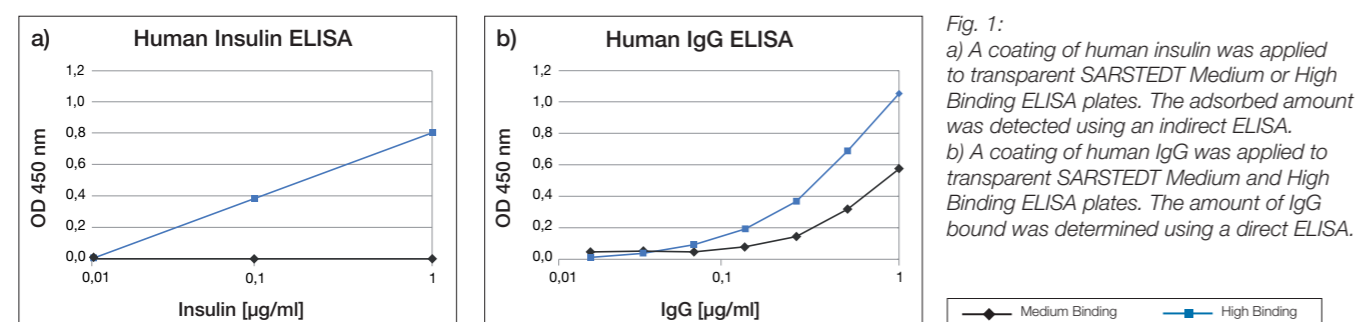
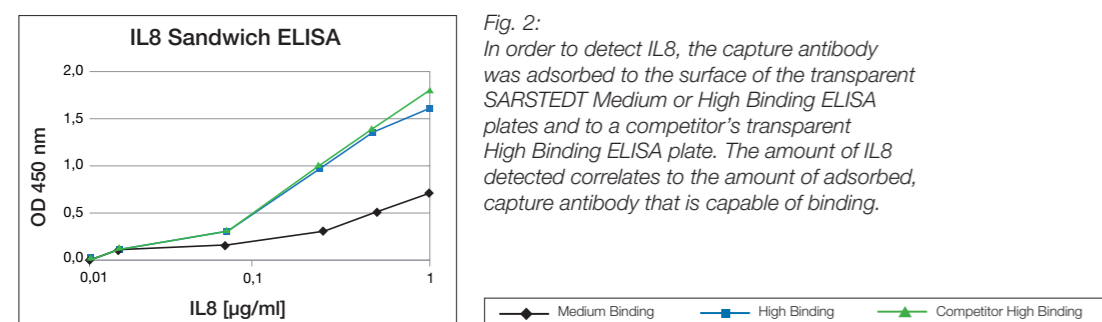


Figure 2 shows the result of an IL8 Sandwich ELISA. This shows that the SARSTEDT High Binding ELISA plate has comparable adsorption properties to a competitor's High Binding ELISA plate. The results of this Sandwich ELISA also show that the SARSTEDT High Binding ELISA plate is more suitable for this application than the SARSTEDT Medium Binding ELISA plate.



**SARSTEDT recommends testing both SARSTEDT ELISA surfaces when setting up a new ELISA as each analyte will have different properties.**

## Material, Dimensions and Certification

Manufacturing user-friendly products is one of our key objectives. All SARSTEDT ELISA plates therefore have uniform basic dimensions that are suitable for automated processing and are produced according to the recommendations of the American National Standards Institute (ANSI 1 to 4--2004 and 6--2004).

A consistent surface quality is a fundamental requirement for the reproducibility of your ELISA experiments. The binding properties of the Medium Binding and High Binding surfaces are determined during production based on an ELISA. The limits for our products' variation coefficients (VC) are as follows:

Surface	VC Well-to-Well	VC Lot-to-Lot
Medium Binding	< 10%	< 10%
High Binding	< 5%	< 5%

The cleanliness of the ELISA plates also plays an important role in ensuring consistent results. For this reason, SARSTEDT's ELISA plates are made from ultra-pure polystyrene and certified as follows:

- **Non-cytotoxic**  
According to the ISO 10993 series of standards
- **Pyrogen-free/endotoxin-free**  
Based on the LAL test, detection limit < 0.06 EU/ml
- **DNA-free**  
Human DNA < 0.5 pg/µl, bacterial DNA < 0.02 pg/µl
- **Free from DNase and RNase**  
DNase < 7.1\*10<sup>-5</sup> U/µl, RNase < 1.4\*10<sup>-10</sup> Kunitz units/µl

## Ordering information

Order no	Color	Surface	Base shape	Max. fill volume	Packaging [item]
82.1581.100	Transparent	Medium Binding	□	0.39 ml	25/bag, 50/case
82.1581.200	Transparent	High Binding	□	0.39 ml	25/bag, 50/case
82.1581.110	White	Medium Binding	□	0.39 ml	25/bag, 50/case
82.1581.210	White	High Binding	□	0.39 ml	25/bag, 50/case
82.1581.120	Black	Medium Binding	□	0.39 ml	25/bag, 50/case
82.1581.220	Black	High Binding	□	0.39 ml	25/bag, 50/case
82.1582.100	Transparent	Medium Binding	U	0.31 ml	25/bag, 50/case
82.1582.200	Transparent	High Binding	U	0.31 ml	25/bag, 50/case
82.1583.100	Transparent	Medium Binding	V	0.29 ml	25/bag, 50/case

## Accessories

Order no	Description	Material	Color	Packaging [item]
82.1584	Lid for micro test and ELISA plates	Polystyrene	Transparent	25/bag, 100/case
82.1586	Adhesive film (temperature range from -40°C to 100°C)	Acetate	Transparent	100/bag

If you have any questions,  
we'll be pleased to help you.

You can also visit our website: [www.sarstedt.com](http://www.sarstedt.com)

### Cell and tissue culture

Cell Cultivation, Cryogenic Storage, Filtration, Liquid Handling



**ISO 9001** **ISO 13485**

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### PCR & Molecular Biology

Certified Products for Applications in PCR,  
Molecular Biology & Research



**PCR** **ISO 9001**

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### Forensic Swab

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



**Maximum purity for optimal safety in preservatives**

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 polypropylene stems, our range also includes a special short option. The Forensic Swab L has an extended handle for the hygienic collection of reference samples. The Forensic Swab M, with extended stem is ideal for the collection of evidence in several small cases.

The ventilation membrane in the tube base enables self-drying of the swab within the tube. Drying of the swab in the open air 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 FDI identification method developed by Sarstedt to comply with the requirements of forensic analysis ensure the absence of DNA contamination.

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

\*Global article ID number = series number (S277952) Germany. The code is printed on the label both in plain text and in a QR-Code (same on the tube and swab for a correct match) (Art. No. 80-828 and 80-828-010)

**SARSTEDT**

### Microbiology

Sample collection, cultivation, and processing



**SARSTEDT**

### Micro tubes

The versatile solution



**PCR** **ISO 9001**

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