

A close-up photograph of a male scientist with short grey hair and a goatee, wearing clear safety glasses with red accents. He is looking intently at a multi-well plate. The plate is partially visible, showing several wells with a greenish-yellow liquid inside. The background is slightly blurred, showing more of the plate and the scientist's hands.

# Thermo Scientific Immunoassay Plate Guide

The right surface for your assay

- Passive binding of biomacromolecules
- Covalent coupling of smaller biomolecules
- Capture of affinity-tagged biomolecules

# The Right Surface for Your Assay

## Advanced immunoassay surface technology

### The functionality of Thermo Scientific immunoassay products lies in the surface and design

This guide provides information about passive binding surfaces for biomacromolecules, covalent coupling surfaces for smaller biomolecules and affinity capture surface for affinity-tagged biomolecules.

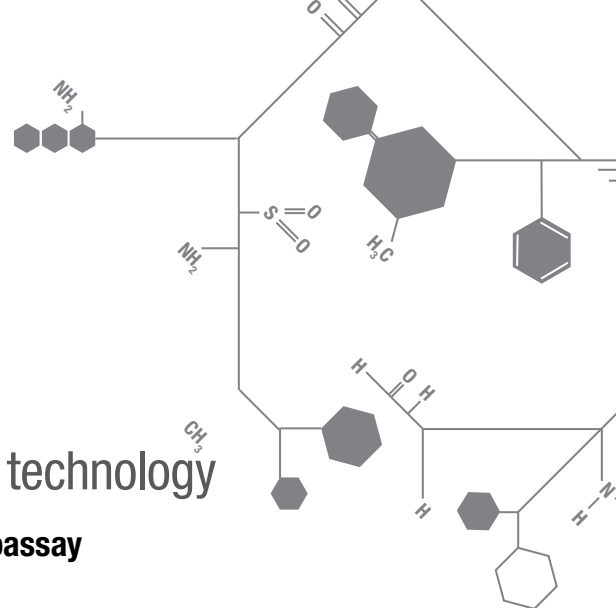
Immunoassay techniques are extremely sensitive and contain detection limits in the range of 10 fmol. In order to obtain accurate, reproducible, and positive results, it is essential that you choose the appropriate surface with optimized conditions. By choosing a Thermo Scientific plate, you benefit from more than 30 years of industry leading experience in immunoassay plate technology, and a broad range of surfaces and formats to optimize your assay.

### When selecting a plate

A number of points need to be taken into consideration when selecting your assay plate: the type of biomolecule, surface and plate format (strip or solid), color (clear, black or white), well volume, and instrument compatibility (pinchbar or Regular flange).

To find the best immunoassay plate for your application, please visit our online plate selection tool.

[www.thermofisher.com/plateguide](http://www.thermofisher.com/plateguide)



### Well configuration



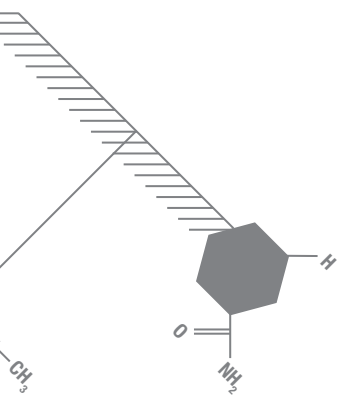
Compatible with  
monochromatic reading

- F-well (Flat bottom)



For easier washing

- C-well (Modified F-bottom)



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For protocols and technical notes, please visit [thermofisher.com/oemdiagnostics](http://thermofisher.com/oemdiagnostics)



**For optimal washing**  
(use dual beam reader)  
• U-well (Round bottom)



**For increased surface/volume ratio**  
**and increased sensitivity**  
• StarWell bottom

# Passive Binding Surfaces

Passive surfaces have a broad range of applications as they can bind to a variety of biomolecules. Passive binding is primarily suited for the immobilization of medium to large sized molecules, such as antibodies, which are capable of establishing several contact points. The exact molecular interaction sites are dependent on the specific matching of the biomolecule's structure with the polymer surface structure. A large variety of biomolecules can be immobilized on passive surfaces with good residual activity.

The family of Thermo Scientific passive surfaces vary in their degree of hydrophilicity and are organized into four different sub-groups: hydrophobic, slightly hydrophilic, hydrophilic, and very hydrophilic. A hydrophobic surface functions predominately via hydrophobic binding. As the surface is made more hydrophilic by the incorporation of oxygen containing functional groups, electrostatic interactions can play a greater role in binding, thus influencing which types of biomolecules will bind strongly to the surface (see Table below).

## This table provides general guidelines for the selection of passive surfaces for the immobilization of particular biomolecules

Biomolecule  
The likelihood of effectively immobilizing a biomolecule on a particular surface is indicated in the table below.

Passive category	Surface	Immunoglobuloproteins	Proteins (water soluble)	Proteins (less water soluble)	Glycans
<b>Hydrophobic</b> These surfaces are typically used for the adsorption of hydrophobic molecules such as lipid rich biomolecules.	PolySorp	Fair	Fair	Very good	Low
	Immulon 1 B	Fair	Fair	Very good	Low
	Universal Binding (UB)	Fair	Fair	Very good	Low
	Microlite 1+	Fair	Fair	Very good	Low
	Microfluor 1	Fair	Fair	Very good	Low
<b>Slightly hydrophilic</b> The slight hydrophilicity of these plates enhances their ability to bind a diverse range of biomolecules, including glycoproteins, serum containing samples and amphoteric molecules such as lipopolysaccharides. With these plates non-specific adsorption of serum containing samples are reduced and this will improve the signal to noise (S/N) ratio and consequently, sensitivity levels.	Immulon 2 HB	Good	Good	Good	Fair
	Microlite 2+	Good	Good	Good	Fair
	Microfluor 2	Good	Good	Good	Fair
	MediSorp	Good	Good	Good	Fair
<b>Hydrophilic</b> Optimized to bind high amounts of IgG (polyclonal), these plates are ideal for antibody sandwich assays (e.g., ELISAs). In addition, they show increased binding of many other proteins and biomolecules that possess hydrophilic/hydrophobic characteristics.	MaxiSorp*	Very good	Very good	Fair	Good
	Immulon 4 HBX	Very good	Very good	Fair	Good
	Enhanced Binding (EB)	Very good	Very good	Fair	Good
<b>Very hydrophilic</b> The most hydrophilic in our portfolio, many hydrophilic proteins will bind with a high affinity to these plates. Binding does, however, tend to be more pH sensitive.	MultiSorp	Low	Good	Fair	Good

\* Optimized for IgG binding



### Passive binding surface characteristics

- Adsorbs larger biomolecules
- A large number of molecular orientations is possible



A wide variety of surfaces are available for performance optimization

The graphic features a red circle containing a diagram of a surface with a hatched pattern and several chemical structures. One structure is a cyclohexane ring with an amino group (-NH<sub>2</sub>) and a methyl group (-CH<sub>3</sub>). Another is a cyclohexane ring with a carbonyl group (-C=O) and an amino group (-NH<sub>2</sub>). A third is a cyclohexane ring with a methyl group (-CH<sub>3</sub>).

# Passive Binding Surfaces

## Hydrophobic

These surfaces are typically used for the adsorption of hydrophobic molecules such as lipid rich biomolecules.

## Hydrophilic

Optimized to bind high amounts of IgG (polyclonal), these plates are ideal for antibody sandwich assays (e.g., ELISAs). In addition, they show increased binding of many other proteins and biomolecules that possess hydrophilic/hydrophobic characteristics.

## Slightly hydrophilic

The slight hydrophilicity of these plates enhances their ability to bind a diverse range of biomolecules, including glycoproteins, serum containing samples and amphoteric molecules such as lipopolysaccharides. With these plates, non-specific adsorption of serum containing samples are reduced and this will improve the signal to noise (S/N) ratio and consequently, sensitivity levels.

## Very hydrophilic

The most hydrophilic in our portfolio, many hydrophilic proteins will bind with a high affinity to these plates. Binding does, however, tend to be more pH sensitive.



### Surfaces for passive binding

Schematic to the left is a representation of the types of biomacromolecules which can be bound to the available modified surfaces. E.g. if a lipid is to be bound the hydrophobic surface PolySorp is most suitable. Based on the physiochemical characteristics of the biomolecule to be immobilized, a surface can be chosen which is appropriate for robust binding. As is indicated in the diagram, MaxiSorp has the widest breadth applications as it is capable of binding the greatest range of molecules.

## Passive binding surfaces

Name	Base polymer	Hydrophilicity	Binding preference
<ul style="list-style-type: none"> <li>○ PolySorp</li> <li>△ Immulon 1 B*</li> <li>△ Microlite 1+*</li> <li>△ Microfluor 1*</li> <li>△ Universal Binding (UB)</li> </ul>	Polystyrene	Low	Biomolecules that have hydrophobic domains, e.g. lipids, lipoproteins, large proteins
<ul style="list-style-type: none"> <li>○ MediSorp*</li> <li>△ Immulon 2 HB*</li> <li>△ Microlite 2+*</li> <li>△ Microfluor 2*</li> </ul>	Polystyrene	Fair	Biomolecules with hydrophilic/hydrophobic properties, e.g. medium to large proteins such as albumin. Amphiphilic biomolecules such as LPS
<ul style="list-style-type: none"> <li>○ MaxiSorp*</li> <li>△ Immulon 4 HBX*</li> <li>△ Enhanced Binding (EB)*</li> </ul>	Polystyrene	Good	Biomolecules with hydrophilic/hydrophobic properties. Designed for high binding of IgG. Also high binding for many other proteins and biomolecules that have hydrophilic/hydrophobic character
<ul style="list-style-type: none"> <li>○ MultiSorp</li> </ul>	Polystyrene	Very good	Hydrophilic biomolecules, e.g. glycoproteins
<ul style="list-style-type: none"> <li>○ TopYield</li> </ul>	Polycarbonate	Fair	Proteins with mixed hydrophobic/hydrophilic regions. e.g. immunoglobulins



Name	Key applications	Features
<ul style="list-style-type: none"> <li>○ PolySorp</li> <li>△ Immulon 1 B*</li> <li>△ Microlite 1+*</li> <li>△ Microfluor 1*</li> <li>△ Universal Binding (UB)</li> </ul>	Coated antigen ELISA, FIA, LIA	- Lower binding of immunoglobulins: approx. 200-250 ng IgG/cm <sup>2</sup>
<ul style="list-style-type: none"> <li>○ MediSorp*</li> <li>△ Immulon 2 HB*</li> <li>△ Microlite 2+*</li> <li>△ Microfluor 2*</li> </ul>	Antibody sandwich ELISA, coated antigen ELISA	<ul style="list-style-type: none"> <li>- Binds proteins</li> <li>- Moderate binding of immunoglobulin: MediSorp 500-600 ng IgG/cm<sup>2</sup> Immulon 2 HB 350-450 ng IgG/cm<sup>2</sup></li> <li>- Lower non-specific binding with samples containing serum or plasma vs. high binding plates</li> </ul>
<ul style="list-style-type: none"> <li>○ MaxiSorp*</li> <li>△ Immulon 4 HBX*</li> <li>△ Enhanced Binding (EB)*</li> </ul>	Antibody sandwich ELISA, FIA, LIA Coated antigen ELISA, FIA, LIA	<ul style="list-style-type: none"> <li>- Effectively binds a broad range of proteins and biomolecules (broadest range)</li> <li>- High binding plate. Immunoglobulin capacity: approx. 600-650 ng IgG/cm<sup>2</sup></li> </ul>
○ MultiSorp	Coated antigen ELISA	- Protein binding is significantly influenced by pH over the range of 4-10. The pH profile should be examined
○ TopYield	Immuno PCR	<ul style="list-style-type: none"> <li>- Excellent heat transmission properties</li> <li>- Excellent stability at the elevated temperatures used for PCR</li> <li>- Designed to facilitate Immuno PCR assays</li> </ul>

**Abbreviations:**

FIA - Fluorescent Immunoassay  
LIA - Luminescent Immunoassay  
NA - Nucleic Acid

ELISA - Enzyme Linked Immuno Sorbent Assay  
PCR - Polymerase Chain Reaction  
LPS - Lipopolysaccharide

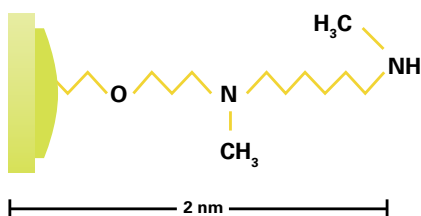
EDC - 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide  
CV - Coefficient of variation

# Covalent Surfaces

Covalent coupling is based on the formation of a single covalent bond between the polymer surface and the biomolecule. Small biomolecules can be immobilized using this technique, as can medium and large molecules that possess the appropriate functional group(s). Since coupling occurs via specific functional groups, biomolecular orientation can also be manipulated by the user.

## Thermo Scientific Nunc CovaLink

The CovaLink™ surface is designed to facilitate the coupling of molecules bearing a free carboxyl or phosphate group. Therefore, peptides, haptens and DNA can be coupled. The surface uses a spacer arm to increase accessibility, thereby helping enhance overall surface reactivity.

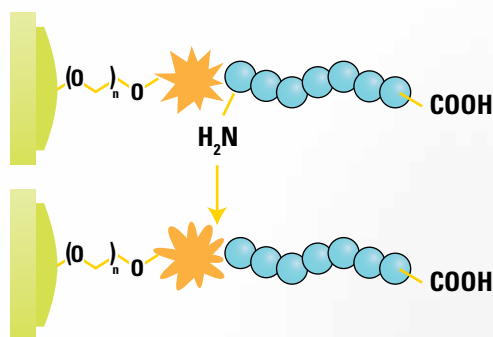


Schematic chemical and physical configuration of the CovaLink NH surface. The NH groups are spaced from the polystyrene surface by 2 nm long (approximately), chemically defined spacer arms, covalently anchored to the surface using a proprietary method.

Binds biomolecules that have specific functional groups

## Thermo Scientific Nunc Immobilizer Amino

The Immobilizer Amino surface forms stable covalent bonds between its electrophilic groups and the biomolecule's free amino acids or sulfhydryl groups. Using its unique spacer arm chemistry, the surface provides extremely low non-specific binding to help improve assay sensitivity. With no need for an ancillary coupling agent, this surface can simplify your assay development by eliminating the need for a time-consuming blocking step.



Covalent coupling of a peptide to the Immobilizer Amino plate. During a short incubation step, the peptide will bind to the electrophilic group.

The Immobilizer Amino surface is ideal

- If your biomolecule does not bind well to a passive surface and it possesses one or more free primary amino or sulfhydryl groups (peptides, oligonucleotides, proteins, proteoglycans)
- To obtain a highly sensitive assay with excellent reproducibility and low background
- To minimize the use of a coating reagent
- To reduce the number of steps required to prepare plates
- To avoid unwanted reactivity associated with a blocking reagent

## Covalent coupling surfaces

Name	Base polymer	Structure	Binding preference
○ Immobilizer Amino*	Polystyrene	Reactive electrophilic group tethered on a spacer arm	Covalent coupling of biomolecules with free NH <sub>2</sub> and/or SH groups e.g. proteins, peptides, aminated oligos
○ CovaLink	Polystyrene	Secondary amine on a 2 nm spacer arm	Covalent coupling of biomolecules with -COOH or -PO <sub>4</sub> -groups EDC used for activation of -COOH, PO <sub>4</sub> -groups
○ NucleoLink	Proprietary Polymer	Proprietary surface chemistry provides functional groups for covalent binding	Covalent binding of 5' phosphorylated or 5' aminated oligonucleotides and nucleic acids using EDC

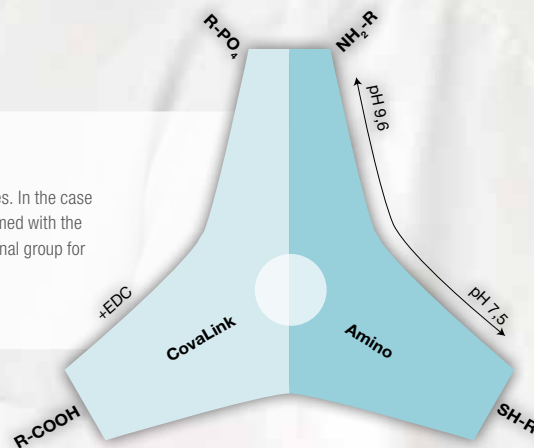


## Covalent surface characteristics

- Minimal leaching
- Withstands vigorous washing
- Coating with lower amounts of reagent may be possible
- Control of orientation

### Covalent coupling surfaces

The diagram shows the available surface modifications for directed binding of target biomolecules. In the case of Thermo Scientific Nunc Immobilizer Amino and CovaLink plates, a strong covalent bond is formed with the biomolecule being immobilized at the surface. The biomolecule must possess the correct functional group for covalent coupling. The relevant functional groups on the biomolecule are shown in the diagram.



Name	Key applications	Features
○ Immobilizer Amino*	Coated antigen ELISA, FIA, LIA NA Hybridization assays Antibody sandwich ELISA, FIA, LIA	<ul style="list-style-type: none"> <li>- Immobilize proteins and peptides that do not bind to passive surfaces</li> <li>- Stable covalent bond formation with free NH<sub>2</sub> or SH groups via spacer arm technology</li> <li>- NO BLOCKING REQUIRED</li> <li>- Simple one step protocol. Add coating solution and incubate</li> <li>- Can frequently reduce the amount of biomolecule needed for coating vs passive plate</li> <li>- High signal-to-noise ratio</li> </ul>
○ CovaLink	Coated antigen ELISA, LIA, FIA	<ul style="list-style-type: none"> <li>- Can link biomolecules via the COOH group (enables the detection of peptides that bind to an antibody via the NH<sub>2</sub> end)</li> <li>- Spacer arm technology for optimal orientation</li> </ul>
○ NucleoLink	Solid Phase PCR, DIAPOPS (Detection of Immobilized Amplified Products), PCR ELISA, NA Hybridization assays	<ul style="list-style-type: none"> <li>- Heat-stable wells (120°C) with excellent thermal transfer properties</li> <li>- Simplifies PCR assisted hybridization assays; perform the PCR amplification and detection steps in the same well.</li> <li>- No need for special real-time PCR equipment</li> <li>- Read in spectrophotometers</li> </ul>

#### Abbreviations:

FIA - Fluorescent Immunoassay  
LIA - Luminescent Immunoassay  
NA - Nucleic Acid

ELISA - Enzyme Linked Immuno Sorbent Assay  
PCR - Polymerase Chain Reaction  
LPS - Lipopolysaccharide

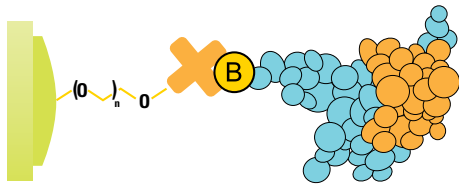
EDC - 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide  
CV - Coefficient of variation

# Affinity Capture Surfaces

Affinity capture is based on the specific binding of a tagged biomolecule to its receptor. The plate surface is therefore developed with one of the binding pair (the receptor) immobilized on its surface, while the tag is linked to a biomolecule either by chemical coupling or genetic engineering. The tagged biomolecule can then be captured on the plate surface with a high degree of specificity.

## Thermo Scientific Nunc Immobilizer Streptavidin

The streptavidin protein molecules are covalently bound to the surface via a spacer arm to reduce leaching and enhance precision. The surface is also modified to minimize non-specific binding. As a result, a high S/N ratio is produced, for increased sensitivity. A biotin binding capacity of 20 pmol per well produces excellent analytical results.



Coupling of a biotinylated protein to the covalently bound streptavidin. After a pre-wash, simply add the biotinylated target molecule in an appropriate buffer. In a short incubation step, the biotinylated molecule will bind to the streptavidin molecule.

All covalent and affinity capture surface plates are room temperature stable and are ready to use.

## Affinity capture surfaces

Name	Base polymer	Structure	Binding preference
○ Immobilizer Streptavidin*	Polystyrene	Streptavidin covalently coupled to polystyrene surface via a spacer arm	Biotinylated biomolecules

○ Thermo Scientific Nunc  
 △ Thermo Scientific Microtiter

\* Release tested for binding reproducibility. See approval criteria chart on page 12.



▶▶▶ Affinity capture surface characteristics

- **Highly specific binding**
- **Reduced variability in molecular orientation**
- **Immobilizer surfaces improve signal to noise ratios**
- **Streptavidin biotin interaction can be exploited to immobilize a wide range of biomolecules (proteins, peptides, haptens, nucleic acids)**

Name	Key applications	Features
○ <b>Immobilizer Streptavidin*</b>	Immunoassays, protein-protein binding assays, PCR ELISA, NA Hybridization assays	<ul style="list-style-type: none"> <li>- NO BLOCKING REQUIRED due to unique surface chemistry</li> <li>- High sensitivity; very high signal-to-noise ratio</li> <li>- Stable at room temperature</li> <li>- Biotin capacity (20 pMol/well provides large dynamic range for analytical assays)</li> </ul>

Abbreviations:

FIA - Fluorescent Immunoassay  
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NA - Nucleic Acid

ELISA - Enzyme Linked Immuno Sorbent Assay  
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LPS - Lipopolysaccharide

EDC - 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide  
CV - Coefficient of variation



## Approval Criteria

**Thermo Scientific Nunc and Microtiter plate surfaces are release tested using a binding assay that employs IgG or other appropriate biomolecules (for 96 well solid and module/strip plates).**

Surface	Specification
MaxiSorp	Clear wells Plate CV % of less than 5% for IgG binding Black and White wells Plate CV % of less than 10% for IgG binding
MediSorp	Plate CV % of less than 5% for IgG binding
Immobilizer Amino	Plate CV % of less than 5% using a peptide binding assay for clear plates Plate CV % of less than 10% using a peptide binding assay for white and black plates
Immobilizer Streptavidin	Plate CV % of less than 5% using a biotinylated binding assay for clear plates Plate CV % of less than 10% using a biotinylated binding assay for white and black plates
CovaLink NH Modules	Plate CV % of less than 10% using a peptide binding assay
NucleoLink	Plate CV % of less than 10% using an oligonucleotide binding assay
Immulon 1B Immulon 2HB Microlite 1+, Microlite 2+ Microfluor 1, Microfluor 2	Plate CV % of less than 8.5% for IgG binding
Immulon 4HBX	Plate CV % of less than 5.5% for IgG binding
Enhanced Binding (EB)	Plate CV % of less than 5% for IgG binding

# Immunoassay Products



Solid plates



Framed modules/strips



Loose modules/strips



Tubes



Immuno sticks



## Accessories



Lids



Strip caps



Frames



Reservoirs



Sealing tapes

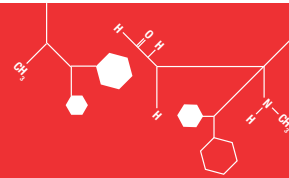


Push-out tool

For additional information on immunoassay products and accessories, please visit: [thermofisher.com/diagnosticplates](http://thermofisher.com/diagnosticplates)

# Our Commitment to the Diagnostic Industry

- Lot to lot consistency
- Batch reservation
- Design
- Functional surfaces
- Customization
- R & D support
- Flexibility
- Innovative solutions

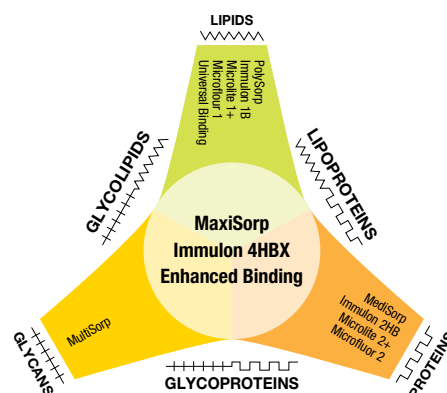


If you want to know more about our services, please do not hesitate to contact us or visit our website

For more information, please visit:  
[thermofisher.com/elisaplates](http://thermofisher.com/elisaplates)

## Surfaces for passive binding

Schematic representation of the types of biomacromolecules, which to be bound, the available modified surfaces. E.g. if a lipid is to be bound, the hydrophobic surface PolySorp plates is most suitable. Based on the physiochemical characteristics of the biomolecule to be immobilized, a surface can be chosen, which is appropriate for robust binding. As is indicated in the diagram, MaxiSorp has the widest breadth applications as it is capable of binding the greatest range of molecules.



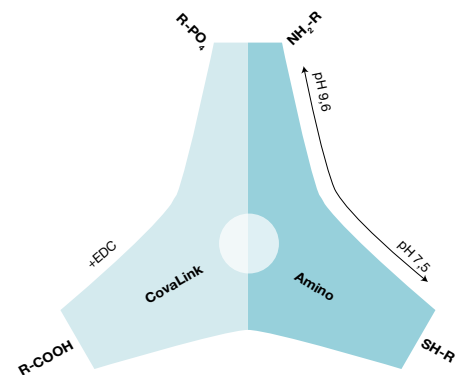


## Quality control

Our highly skilled QC and QA technicians are available to provide documentation necessary to fulfill your requirements. Our certified facilities assure a high consistency and quality throughout the entire process.

### Covalent coupling surfaces

The diagram shows the available surface modifications for directed binding of target biomolecules. In the case of Thermo Scientific Nunc Immobilizer Amino and CovaLink plates, a strong covalent bond is formed with the biomolecule being immobilized at the surface. The biomolecule must possess the correct functional group for covalent coupling. The relevant functional groups on the biomolecule are shown in the diagram.



# Product Overview

## Passive binding surface products

	Surface	Cat. no.	Configuration	Type	Frame	Color	Total volume, $\mu\text{L}/\text{well}$	Units per pack/case		
Hydrophobic	Solid 96 well plates	PolySorp	<a href="#">456529</a>	F96	High flange	Solid	Clear	400	10/180	
		PolySorp	<a href="#">475094</a>	F96	Pinchbar	Solid	Clear	400	5/60	
		PolySorp	<a href="#">475434</a>	U96	High flange	Solid	Clear	300	5/60	
		PolySorp	<a href="#">436111</a>	F96	High flange	Solid	White	400	10/80	
		PolySorp	<a href="#">437112</a>	F96	High flange	Solid	Black	400	10/80	
		PolySorp	<a href="#">446140</a>	C96	High flange	Solid	Clear	350	5/60	
		Universal Binding	<a href="#">9502227</a>	F96	Regular flange	Solid	Clear	450	25/50	
		Universal Binding	<a href="#">9502887</a>	F96	Regular flange	Solid	White	450	25/50	
		Universal Binding	<a href="#">9502867</a>	F96	Regular flange	Solid	Black	450	25/50	
		Immulon 1 B	<a href="#">3355</a>	F96	High flange	Solid	Clear	330	10/50	
		Immulon 1 B	<a href="#">3555</a>	U96	High flange	Solid	Clear	280	10/50	
		Microfluor 1	<a href="#">7605</a>	F96	Regular flange	Solid	Black	330	10/50	
		Microfluor 1	<a href="#">7705</a>	F96	Regular flange	Solid	White	330	10/50	
		Microlite 1+	<a href="#">7571</a>	F96	Regular flange	Solid	White	330	10/50	
		Non treated (sterile)	<a href="#">2305-11*</a>	U96	Regular flange	Solid	Clear	280	10/50	
		Non treated	<a href="#">2205</a>	U96	Regular flange	Solid	Clear	280	10/50	
		Strip/module plates 96 wells	PolySorp	<a href="#">467679</a>	F16	Non breakable	Framed	Clear	400	10/60
			PolySorp	<a href="#">473717</a>	C12	Non breakable	Framed	Clear	350	10/60
	PolySorp		<a href="#">469078</a>	F8	Non breakable	Framed	Clear	400	10/60	
	PolySorp		<a href="#">444865</a>	C8	Non breakable	Framed	Clear	350	10/60	
	PolySorp		<a href="#">475086</a>	U8	Non breakable	Framed	Clear	300	10/60	
	PolySorp		<a href="#">446442</a>	C8	Breakable	Framed	Clear	350	10/60	
	PolySorp		<a href="#">473539</a>	C8	Breakable	Framed	Clear	350	10/60	
	PolySorp		<a href="#">463200</a>	C8	Breakable	Framed	White	350	10/60	
	PolySorp		<a href="#">446473</a>	C8	Breakable	Framed	Black	350	10/60	
	PolySorp		<a href="#">475523</a>	F16	Non breakable	Framed	Black	400	10/60	
	PolySorp		<a href="#">437702</a>	C8	Non breakable	Framed	White	350	10/60	
	PolySorp		<a href="#">469922</a>	F16	Non breakable	Unframed	Clear	400	80/320	
PolySorp	<a href="#">469957</a>		F8	Non breakable	Unframed	Clear	400	160/640		
Immulon 1 B	<a href="#">6301</a>		F12	Breakable	Unframed	Clear	380	320/320		
Immulon 1 B	<a href="#">6310</a>		F12	Breakable	Framed	Clear	350	100/100		
Microlite 1+	<a href="#">7566</a>		F12	Breakable	Unframed	White	380	320/320		
Universal Binding	<a href="#">95029390</a>		F8	Breakable	Framed	Clear	400	25/50		
Universal Binding	<a href="#">95029360**</a>		F8	Breakable	Framed	Clear	400	250		
Universal Binding	<a href="#">95029400**</a>		F8	Breakable	Framed	Clear	400	250		
TopYield	<a href="#">248909</a>		V8	Breakable	Unframed	Clear	330	120/1440		
Slightly hydrophilic	Solid 96 well plates	MediSorp	<a href="#">467320</a>	F96	High flange	Solid	Clear	400	5/60	
		Microlite 2+	<a href="#">7417-12*</a>	F96	Regular flange	Solid	White	330	10/50	
		Immulon 2 HB	<a href="#">3455</a>	F96	Regular flange	Solid	Clear	330	10/50	
		Immulon 2 HB	<a href="#">3655</a>	U96	Regular flange	Solid	Clear	280	10/50	
		Microfour 2	<a href="#">7805</a>	F96	Regular flange	Solid	Black	330	10/50	
		Microfour 2	<a href="#">7905</a>	F96	Regular flange	Solid	White	330	10/50	
		Microlite 2+	<a href="#">7572</a>	F96	Regular flange	Solid	White	330	10/50	
		Strip/module plates 96 wells	MediSorp	<a href="#">467120</a>	F8	Non breakable	Framed	Clear	400	10/60
	MediSorp		<a href="#">446470</a>	C8	Breakable	Framed	Clear	350	10/60	
	MediSorp		<a href="#">467595</a>	F16	Non breakable	Framed	Clear	400	10/60	
	Immulon 2 HB		<a href="#">6309</a>	F12	Breakable	Framed	Clear	350	100/100	
	Immulon 2 HB		<a href="#">6302</a>	F12	Breakable	Unframed	Clear	380	320/320	
	Microlite 2+		<a href="#">7567</a>	F12	Breakable	Unframed	White	380	320/320	
	Microlite 2	<a href="#">7410*</a>	F12	Breakable	Unframed	White	380	320/320		

\* Available in Americas only

\*\* Available in EMEA only

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# Product Overview

## Passive binding surface products

	Surface	Cat. no.	Configuration	Type	Frame	Color	Total volume, $\mu\text{L}/\text{well}$	Units per pack/case	
<b>Solid 96 well plates</b>	MaxiSorp	430341	C96	Pinchbar	Solid	Clear	350	5/60	
	MaxiSorp	446612	C96	Pinchbar	Solid	Clear	350	5/60	
	MaxiSorp	437796	C96	Pinchbar	Solid	White	350	5/60	
	MaxiSorp	456537	F96	High flange	Solid	Clear	400	10/180	
	MaxiSorp Barcode	460984	F96	High flange	Solid	Clear	400	10/180	
	MaxiSorp	439454	F96	Pinchbar	Solid	Clear	400	5/60	
	MaxiSorp	442404	F96	Pinchbar	Solid	Clear	400	5/60	
	MaxiSorp	449824	U96	High flange	Solid	Clear	300	5/60	
	MaxiSorp	437111	F96	Pinchbar	Solid	Black	400	10/80	
	MaxiSorp	436110	F96	Pinchbar	Solid	White	400	10/80	
	Immulon 4 HBX	3855	F96	Regular flange	Solid	Clear	330	10/50	
	Enhanced Binding	95029330	F96	Regular flange	Solid	Clear	450	25/50	
<b>Strip/module plates 96 wells</b>	MaxiSorp	469914	F16	Non breakable	Unframed	Clear	400	80/320	
	MaxiSorp	469264	U16	Non breakable	Unframed	Clear	300	80/320	
	MaxiSorp	469949	F8	Non breakable	Unframed	Clear	400	160/640	
	MaxiSorp	467466	F16	Non breakable	Framed	Clear	400	10/60	
	MaxiSorp	473709	C12	Non breakable	Framed	Clear	350	10/60	
	MaxiSorp	468667	F8	Non breakable	Framed	Clear	400	10/60	
	MaxiSorp	434797	F8	Non breakable	Framed	Clear	400	20/120	
	MaxiSorp	445101	C8	Non breakable	Framed	Clear	350	10/60	
	MaxiSorp	445105*	C8	Non breakable	Framed	Clear	350	10/60	
	MaxiSorp	475078	U8	Non breakable	Framed	Clear	300	10/60	
	MaxiSorp	441653	C8 Star	Non breakable	Framed	Clear	380	10/60	
	MaxiSorp	446469	C8	Breakable	Framed	Clear	350	10/60	
	MaxiSorp	446639**	U8	Breakable	Framed	Clear	320	10/60	
	MaxiSorp	448526**	C8 Star	Breakable	Framed	Clear	330	10/60	
	MaxiSorp	473768	C8	Breakable	Framed	Clear	350	10/60	
	MaxiSorp	437915	C12	Non breakable	Framed	Clear	350	10/60	
	MaxiSorp	475515	F16	Non breakable	Framed	Black	400	10/60	
	MaxiSorp	437591	C8	Non breakable	Framed	White	350	10/60	
	MaxiSorp	463201	C8	Breakable	Framed	White	350	10/60	
	MaxiSorp	446471	C8	Breakable	Framed	Black	350	10/60	
	Immulon 4 HBX	6404	F12	Breakable	Unframed	Clear	380	320/320	
	Immulon 4 HBX	6405	F12	Breakable	Framed	Clear	350	100/100	
	Enhanced Binding	95029100	F8	Non breakable	Framed	Clear	330	5/50	
	Enhanced Binding	95029140	F12	Non breakable	Framed	Clear	400	5/50	
Enhanced Binding	95029180	F8	Breakable	Framed	Clear	400	25/50		
NucleoLink	248259	V8	Breakable	Unframed	Clear	330	120/1440		
<b>384 well plates</b>	Maxisorp	460518	F384	Pinchbar	Solid	Black	120	10/30	
	Maxisorp	464718	F384	Pinchbar	Solid	Clear	120	10/30	
	Immulon 4HBX	8755	RS384	Regular flange	Solid	Clear	120	10/50	
	Maxisorp	460372	F384	Pinchbar	Solid	White	120	10/30	
<b>Solid 96 well plates</b>	MultiSorp	467340	F96	High flange	Solid	Clear	400	5/60	
	<b>Strip/module plates 96 wells</b>	MultiSorp	467140	F8	Non breakable	Framed	Clear	400	10/60
		MultiSorp	446490	C8	Breakable	Framed	Clear	350	10/60

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# Product Overview

## Covalent surface products

	Surface	Cat. no.	Configuration	Type	Frame	Color	Total volume, $\mu\text{L}/\text{well}$	Units per pack/case	
Covalent	Solid 96 well plates – clear, black and white	Immobilizer Amino	<a href="#">436006</a>	F96	Pinchbar	Solid	Clear	400	5/30
		Immobilizer Amino	<a href="#">436007</a>	F96	Pinchbar	Solid	White	400	5/30
		Immobilizer Amino	<a href="#">436008</a>	F96	Pinchbar	Solid	Black	400	5/30
	Strip/module plates 96 wells clear, black and white	Immobilizer Amino	<a href="#">436013</a>	F8	Non breakable	Framed	Clear	400	5/30
		Immobilizer Amino	<a href="#">436023</a>	C8	Breakable	Framed	Clear	350	5/30
		Immobilizer CovaLink	<a href="#">478042</a>	F8	Non breakable	Framed	Clear	400	5/30

## Affinity capture surface products

	Surface	Cat. no.	Configuration	Type	Frame	Color	Total volume, $\mu\text{L}/\text{well}$	Units per pack/case	
Affinity	Solid 96 well plates – clear, black and white	Immobilizer Streptavidin	<a href="#">436014</a>	F96	Pinchbar	Solid	Clear	400	1/15
		Immobilizer Streptavidin	<a href="#">436015</a>	F96	Pinchbar	Solid	White	400	1/15
		Immobilizer Streptavidin	<a href="#">436016</a>	F96	Pinchbar	Solid	Black	400	1/15
	Strip/module plates 96 wells – clear	Immobilizer Streptavidin	<a href="#">436020</a>	F8	Non breakable	Framed	Clear	400	1/15
		Immobilizer Streptavidin	<a href="#">436022</a>	C8	Breakable	Framed	Clear	350	1/15
	384 well plates	Immobilizer Streptavidin	<a href="#">436017</a>	F384	Pinchbar	Solid	Clear	120	1/15

## Accessories


	Cat. no.	Fit strip / modules	Type	Design	Color	Units per pack/case
Frame	<a href="#">6604</a>	F12 Immulon modules (1 x 12)	Regular flange	Frame	White	10/10
Frame	<a href="#">431615</a>	C8 BreakApart	Pinchbar	Frame	White	5/60
Frame	<a href="#">465404</a>	F8, C8, U8 LockWell	Pinchbar	Frame	White	5/60
Frame	<a href="#">249182</a>	V8 TopYield / NucleoLink	Pinchbar	Frame	Red	6/72
Frame	<a href="#">460348</a>	F8, C8, U8, F16, U16	Pinchbar	Frame	White	5/60
Lid	<a href="#">6305</a>	1x12 assembly	-	Lid	Natural	100/100
Lid	<a href="#">448143</a>	Solid plates	-	Lid	White	20/120
Cap	<a href="#">430082</a>	Standard modules	-	Cap	Natural	60/180
Push out tool	<a href="#">430414</a>	BreakApart plates	-	Push out tool	Blue	240/240
Sealing tape	<a href="#">232701</a>	Plates and modules	Polyolefin Acrylate	Sealing tape	Clear	100/100
Sealing tape	<a href="#">235306</a>	Plates and modules	Polyethylene Silicone	Sealing tape	Clear	100/100
Sealing tape	<a href="#">236272</a>	Plates and modules	Polyester Acrylate	Sealing tape	White	50/50
Sealing tape	<a href="#">236703</a>	Plates and modules	Vinyl Acrylate	Sealing tape	Black	50/50

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# Find the Best Product for Your Application



**Thermo Scientific  
Solid Phase Guide**

- Solid Phase formats and surfaces
- Parameters affecting coating
- Assay conditions for ELISA
- Immobilization of DNA

**an introduction to  
solid phase techniques**



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## Thermo Scientific Solid Phase Guide

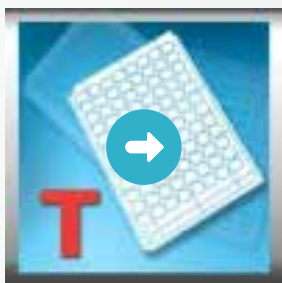
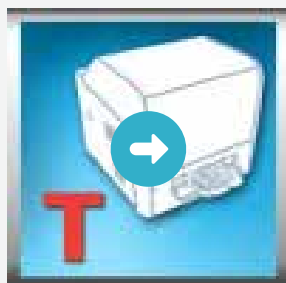
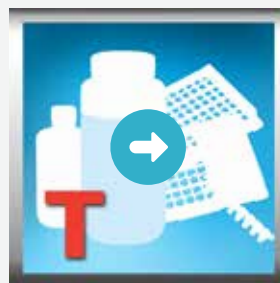


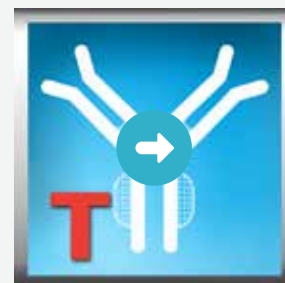
Plate Selection Guide



Microplate Readers



Diagnostic and  
Packaging Resources



In Vitro Diagnostic  
Products Guide

# Speed Up Your Process with Thermo Scientific Microplate Readers

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The Multiskan® FC microplate photometer is an easy-to-use ELISA reader for research and routine applications.



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## Thermo Scientific Fluoroskan Ascent FL

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