



Thermo Scientific Diagnostic Products

Your Name

Title

Business Unit

Date

released 7/01/2012

Unmatched Portfolio of Products and Services

PRODUCTS



Laboratory
Equipment



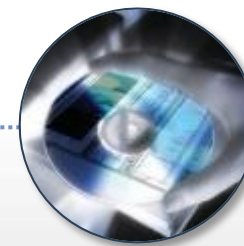
Analytical
Instruments



Reagents



Consumables



Software

The world leader in serving science

SERVICES



e-commerce



Customer
Service



On-site
Service



Financial
Service



Delivery

Your Partner in Science

Your Partner in Science

ThermoFisher
SCIENTIFIC

The world leader in serving science



*Committed to our customers' goals
for better results and greater productivity*

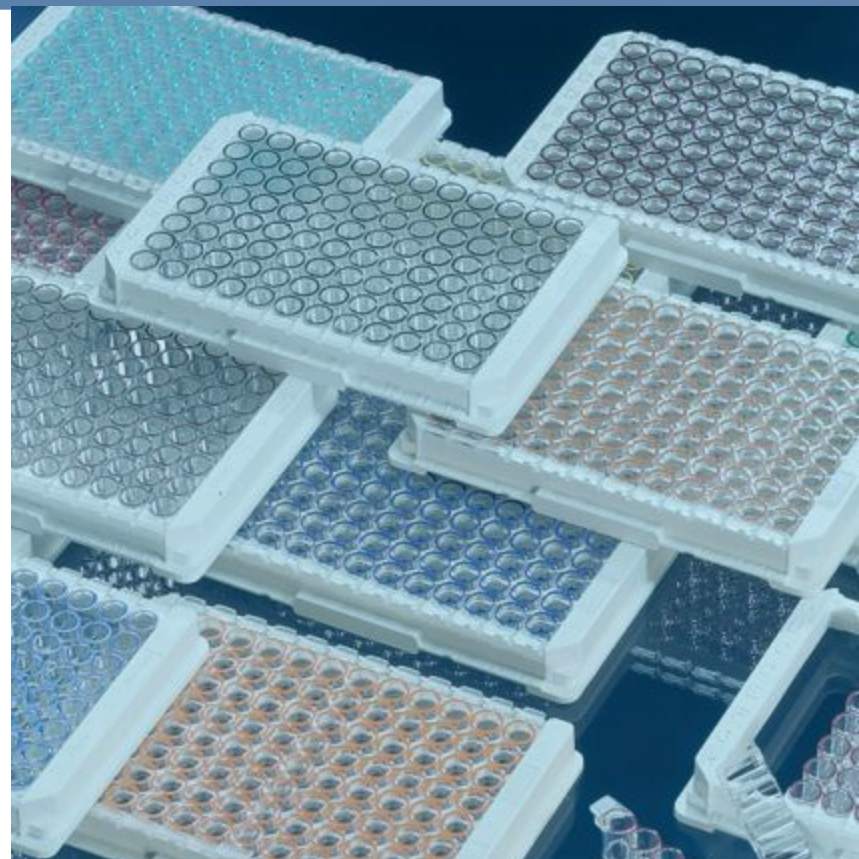
Products for Diagnostics

Thermo Scientific Passive Adsorption Surfaces:

- PolySorp™
- MediSorp™
- MaxiSorp™
- MultiSorp™
- Immulon 1B
- Universal Bind
- Immulon 2HB
- Immulon 4HBX
- Enhanced Bind

Thermo Scientific Covalent and Affinity Capture Surfaces:

- CovaLink™
- Immobilizer™ Streptavidin
- Immobilizer™ Amino
- Immobilizer™ Glutathione
- Immobilizer™ Nickel-Chelate
- BioBind
- Streptavidin



www.thermoscientific.com/diagnosticplates

**The broadest surface
portfolio on the market**

Key Capabilities

We are able to modify the polystyrene surface to meet your specific application.

Three different types of Thermo Scientific surfaces:

- Passive Adsorption Surfaces
- Covalent Surfaces
- Affinity Capture Surfaces

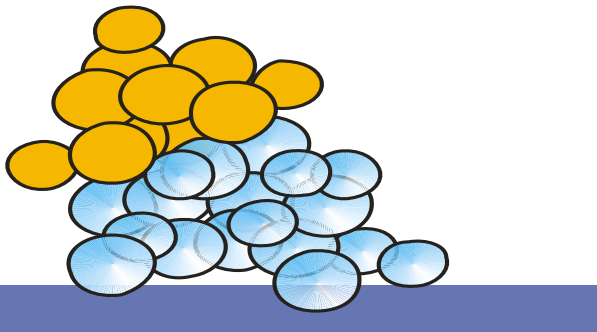


Passive Adsorption Surfaces

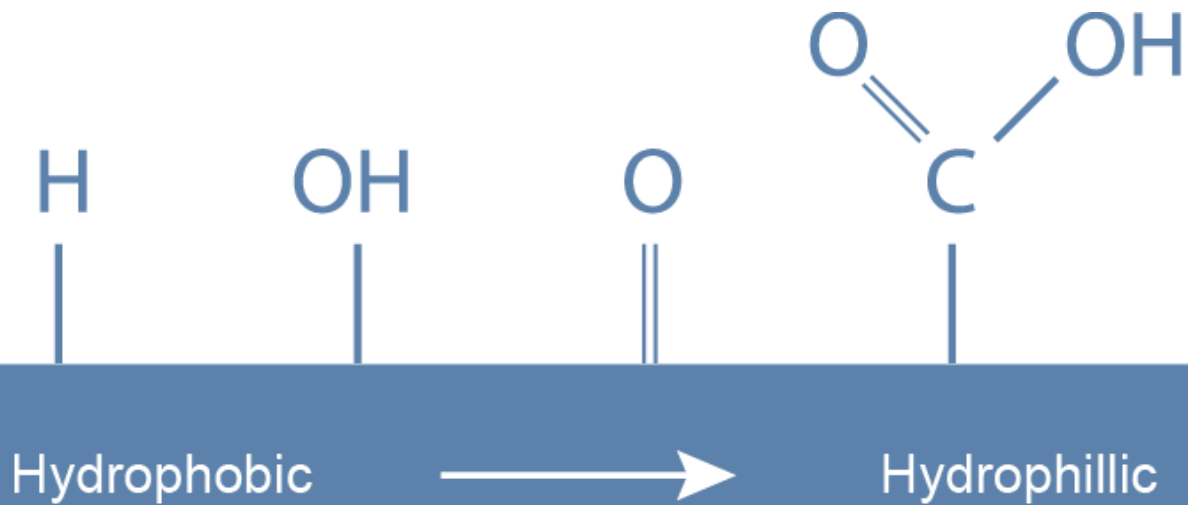
Bio-molecules are bound to the surface via several non-covalent bonds.

The collective force can be substantial.

- In general, larger molecules bind better
- Most successfully used for proteins (Antibodies)
- Moderate success with moderate complex to complex lipids

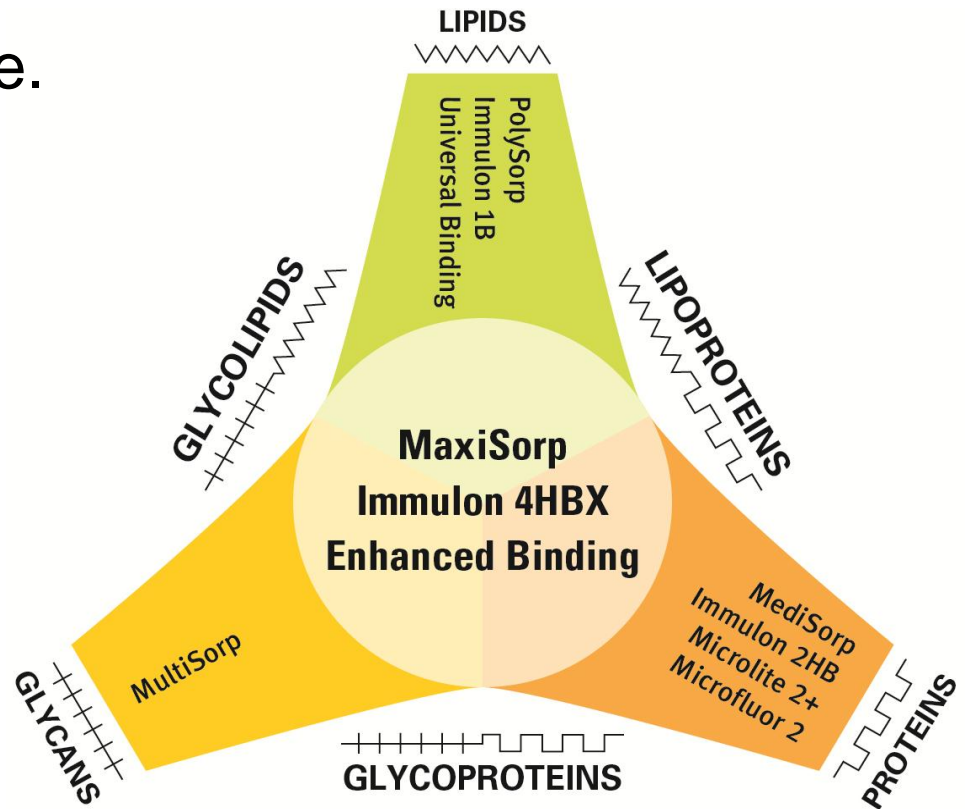


Adsorption Principles



Passive Adsorption Surfaces

Guide to recommended biomolecule to be bound onto the passive adsorption surface.



Covalent Surfaces

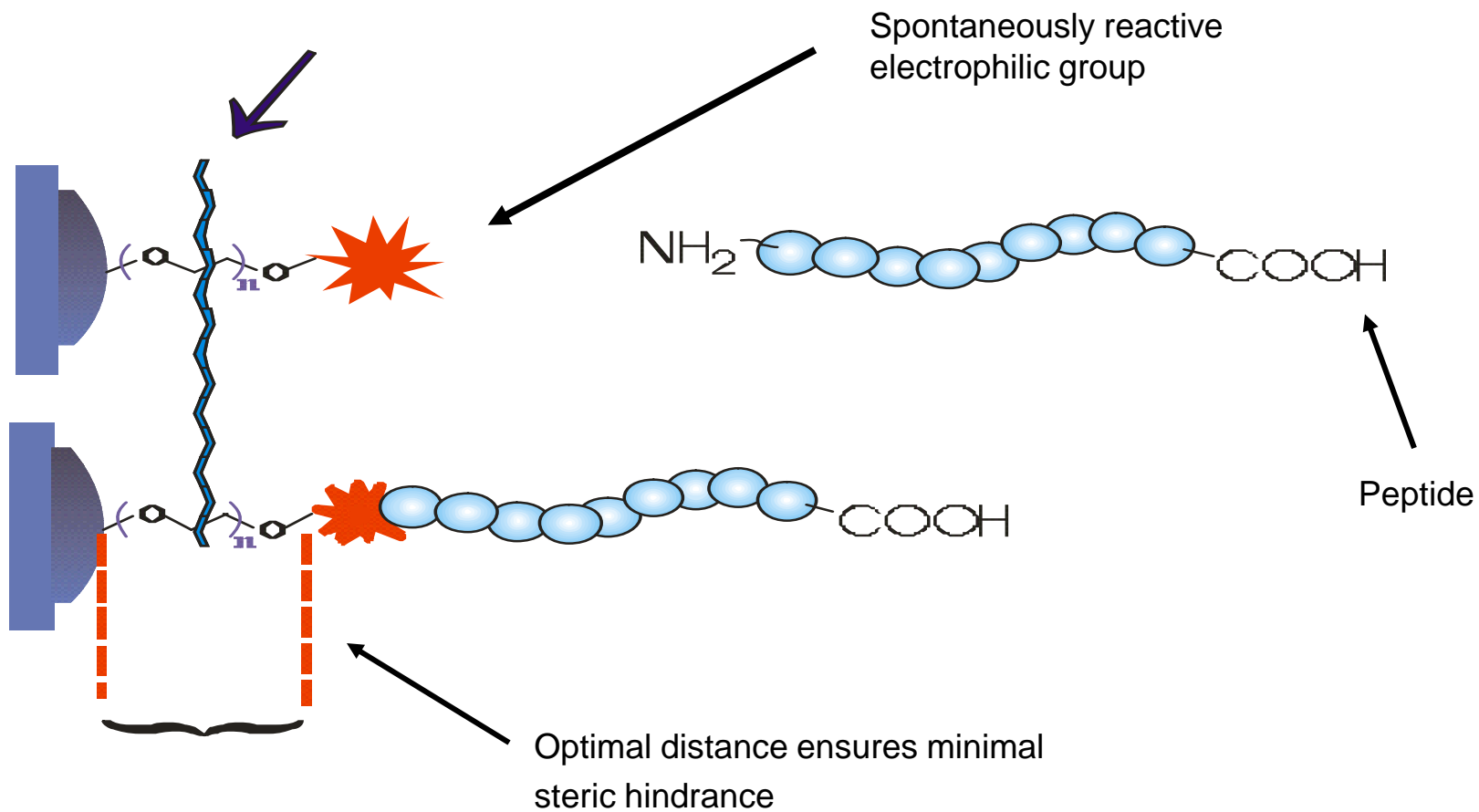
Biomolecules are attached to the surface by strong covalent bonds.

- Involves forming a bond between a functional group such as NH₂ on the biomolecule and another functional group incorporated into the surface of the plate

Advantages

- Binding is not size dependent
- Several biomolecules that do not bind well on passive surfaces can be immobilized - peptides, nucleic acids, highly charged proteins
- Better molecular orientation produces higher signals and greater assay sensitivity

Covalent Surfaces



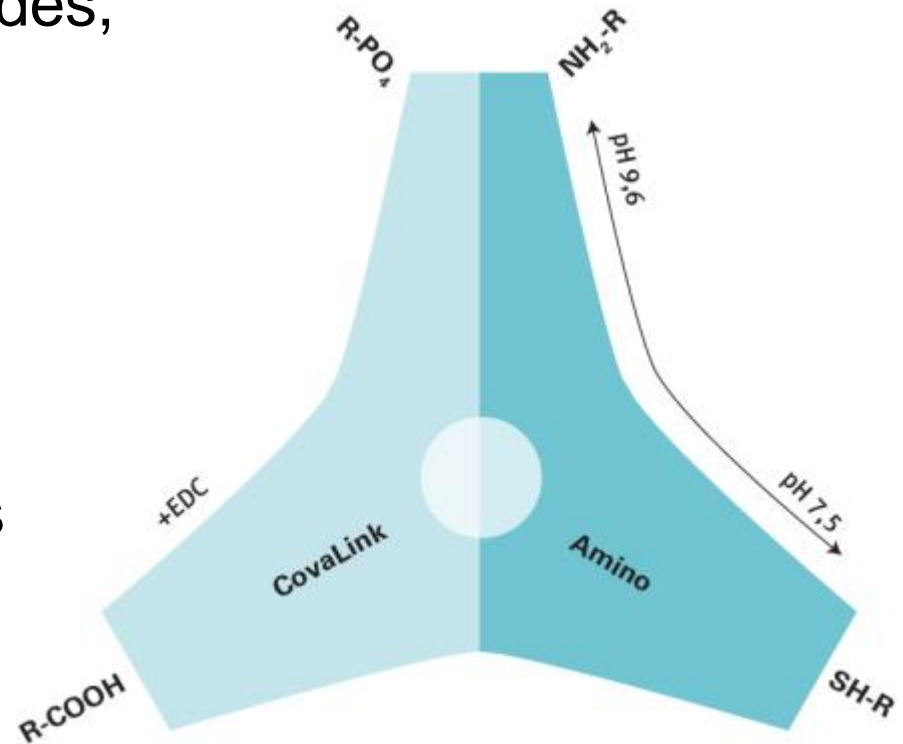
Covalent Surfaces

Immobilizer Amino

- Covalent attachment of peptides, proteins and antibodies (pH dependent)

CovaLink

- Binds to COOH (carboxy) and PO₄ (phosphate) groups



Affinity Capture Surfaces

Plate surface is pre-coated with a specific capture molecule:

CAPTURE

- Streptavidin
- Nickel-Chelate
- Glutathione

LIGAND

- Biotin
- Poly-histidine
- Glutathione-S-Transferase



Affinity Capture Surfaces

Thermo Scientific Nunc Immobilizer Streptavidin

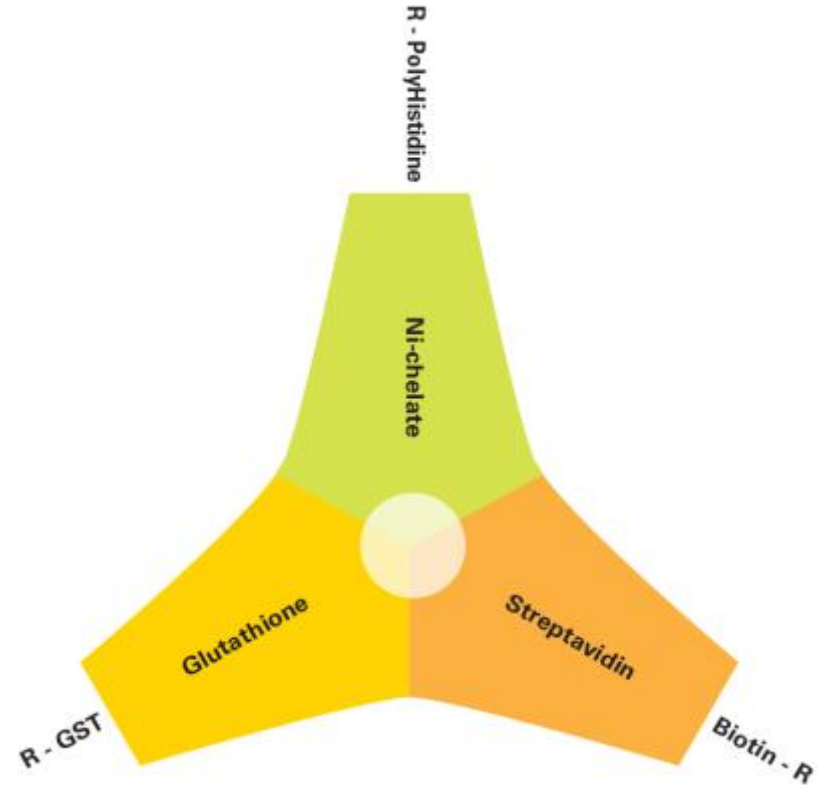
- Attachment of biotinylated oligonucleotides/peptides/proteins etc.

Thermo Scientific Nunc Immobilizer Glutathione

- Attachment of Glutathione-S-Transferase-tagged fusion proteins

Thermo Scientific Nunc Immobilizer Ni-Chelate

- Attachment of Histidine-tagged fusion proteins



Guide to the Right Surface

Most common biomolecules:

- Antibodies (glycoproteins) - passively adsorption plates
 - MaxiSorp, Enhanced binding or Immulon 4HBX
- Antigens and proteins – passively adsorption plates
 - MediSorp, Immulon 2B, Microlite 2+, Microflour 2+
- Lipids (hydrophobic) – passively adsorption plates
 - Polysorp, Immulon 1B, Universal binding
- Peptides and small molecules - covalent attachment
 - CovaLink or Amino Immobilizer
- Biotinylated biomolecules
 - Streptavidin Immobilizer

Diagnostic bottles

Thermo Scientific Nalgene Bottles, Carboys and Vials

It's easy to take for granted the containers you entrust with your valuable samples and solutions. But not all bottles are created equal. Nalgene is the #1 choice, with more than 3,000,000 safely at work in laboratories around the world.

- Leakproof design
- Small bottles are perfect for diagnostic reagents
- Size range from 0.5 ml through 20 ml
- Multiple materials available – durable, break resistant
- Multiple packaging options to meet your requirements



Tools




**Thermo Scientific
Immunoassay Plate Guide**

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

**the right surface
for your assay**

Immunoassay Plate Guide

- Interactive, online version:
<http://thermo.dirxion.com/immunoassaybrochure>
- Printed



**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**

Solid Phase Guide

- Interactive, online version:
<http://thermo.dirxion.com/immunoassayguide>
- Printed

Tools

Thermo Scientific Antibody Sample Kit

- F96 MaxiSorp, Medisorp, Immulon 4HBX, Immulon 2HBX, Enhanced Binding

Thermo Scientific Peptide Sample Kit

- F8 Amino Immobilizer and F8 CovaLink

