

ANTEOBIND™ TECHNOLOGY

A gentler, more versatile alternative to conventional bioconjugation methods.

AnteoBind™ is AnteoTech's proprietary metal ion complex-based activation technology, utilising the principles of coordination chemistry. It is used in the Life Sciences industry, providing an alternative to conventional bioconjugation methods such as EDC/NHS.

AnteoBind™ utilises the same principle used in IMAC by providing multiple metal atoms to form dative bonds with electron sharing ligands, such as biomolecules. It is a gentler option compared to the covalent chemistry-based conjugation methods.

Unlike the IMAC system which only contains one metal ion within the coordination centre, AnteoBind™ consists of oligomeric metal ion polymers derived from the transition metals

family. The availability of multiple sites for dative bond formation allows generation of water soluble and room temperature stable formulations of ligand-metal complexes for various surfaces.

AnteoBind™ treatment (activation) of the surface of interest creates a nanometre thin layer of metal ion complex on the surface (Figure 1), that acts as a binder and facilitates biomolecule bioconjugation. This AnteoBind™ activated surface can robustly bind with biomolecules that carry electron donating potential on their surface for subsequent processes and applications.

Functional groups compatible with AnteoBind™ include carboxyl (-COOH), hydroxyl (-OH) and Thiol (-SH).

How AnteoBind™ works: Illustration of the carboxylic groups

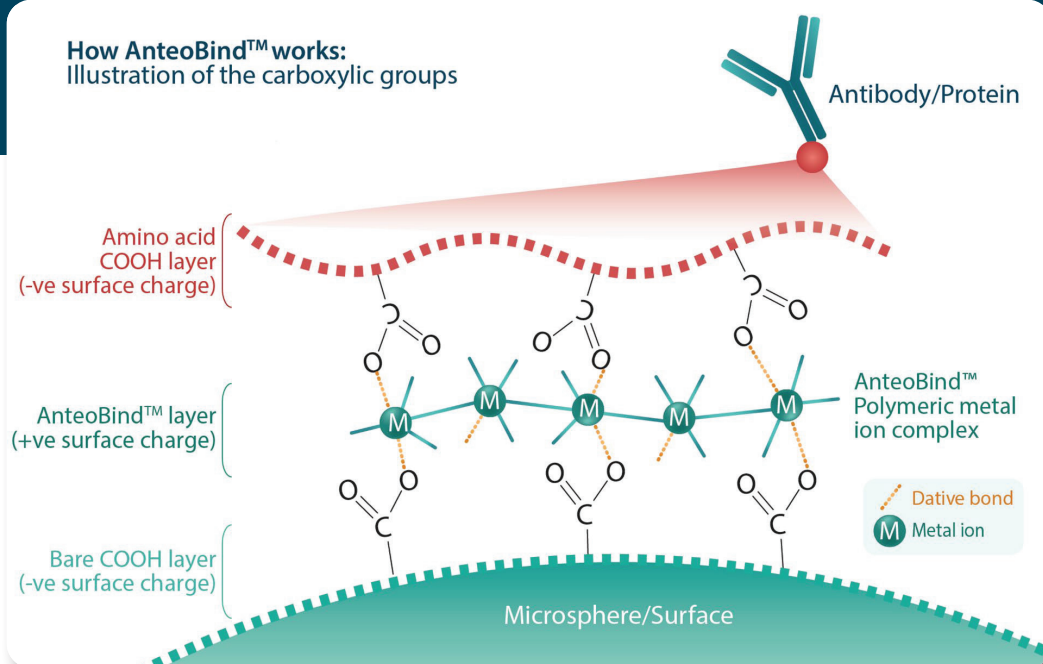


Figure 1. Schematic representation of AnteoBind™ functioning like a double-sided molecular glue, facilitating the conjugation of synthetic surfaces (illustrated by carboxylic acid) and biomolecules (antibody/protein) via dative bonds.

ANTEOBIND™ PRODUCTS

Our proprietary range of products features the innovative AnteoBind™ technology, providing an alternative to conventional bioconjugation chemistries such as EDC/NHS.

AnteoBind™ conjugated particles can be used in a wide range of particle-based assays ranging from Chemiluminescent, to ELISA, lateral flow and in bioseparation.

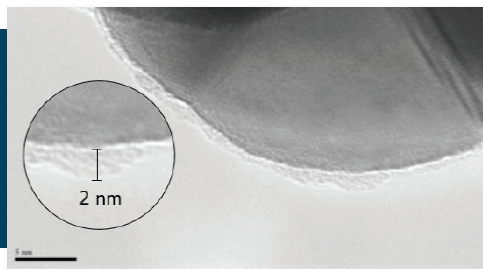


Figure 2. Transmission electron microscope image demonstrating surface activation. This image of an activated gold nanoparticle demonstrates that the surface is coated with approximately 2 nm of AnteoBind™ and is ready for biomolecular conjugation.

We have ready-to-use kits, compatible with a range of microspheres, nanospheres and planar surfaces.

PRODUCTS	FEATURES / BENEFITS
AnteoBind™ NXT	<p>For nano & microparticle-based assay development & bioseparation</p> <ul style="list-style-type: none">• Develop your own activated particles & surfaces• Antibody savings of >50% in lateral flow assays• AnteoBind™ NXT-activated particles are stable for >12 months, allowing multiple uses from the same batch• Evaluation kits & stand-alone reagents available (50ml, 100ml, 250ml)
AnteoBind™ Biosensor	<p>For planar solid phase assay development</p> <ul style="list-style-type: none">• Activation of planar surfaces (glass slides, 96 well plates, COC plastics) for protein coupling• Standalone AnteoBind™ reagent only• Activated surfaces are stable for >12 months
AnteoBind™ Activation Kit Multiplex Microspheres	<p>For Luminex® Microspheres Multiplex Immunoassay development</p> <ul style="list-style-type: none">• Compatible with Luminex microspheres (e.g. Magplex® and Microplex®)• Contains all reagents for the AnteoBind™ bioconjugation process, just add your own protein and preferred blocker• Activated particles are stable for >12 months• Proven to work with difficult proteins• Fast assay development time