

BioDesign: The Definitive Toolbox for Optimizing Bioconjugate Properties and Expediting Conjugate Synthesis

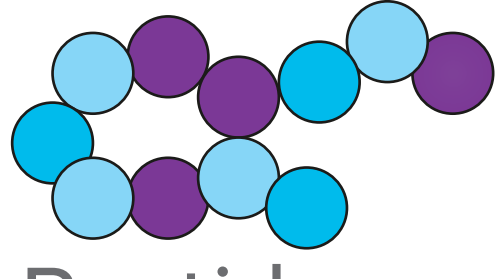


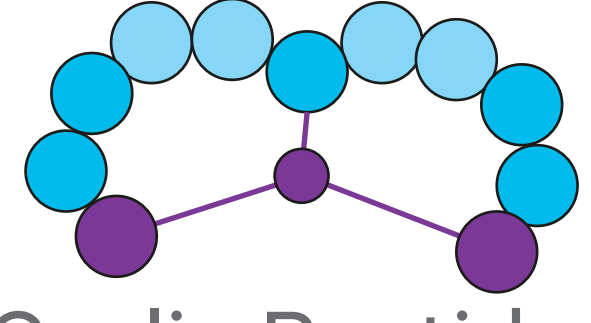
What is BioDesign™?

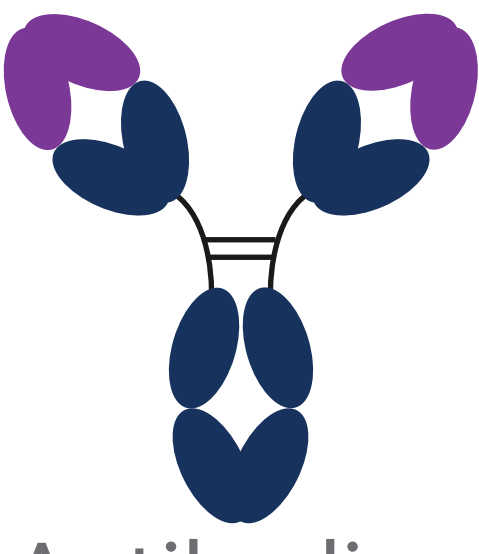
The successful development of new antibody drug conjugates (ADCs) requires expert knowledge of antibody engineering, chemical biology, and linker architecture. BioDesign, by Vector Laboratories, provides drug developers ease of access to trusted antibody engineering, crucial bioconjugation products, and unique linker IP. These critical elements in Vector Laboratories' BioDesign toolbox help to maximize your development versatility, overcome resource constraints, enable you to manufacture at scale, and decrease your time-to-market.

Your Proprietary Assets

Targeting and therapeutic biologics

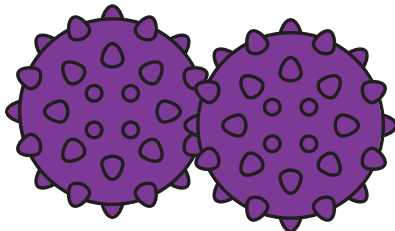

Peptides

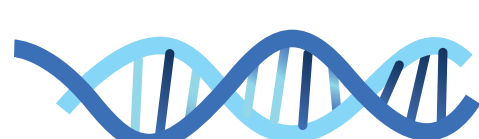

Cyclic Peptides

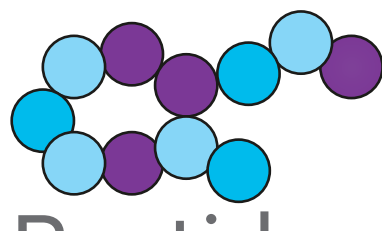

Antibodies

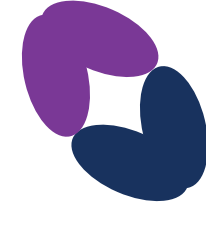
Therapeutic and diagnostic payloads

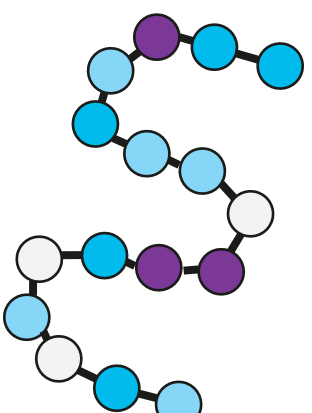

Radionuclides


Cytotoxins and Immune Modulators


Oligonucleotides


Peptides

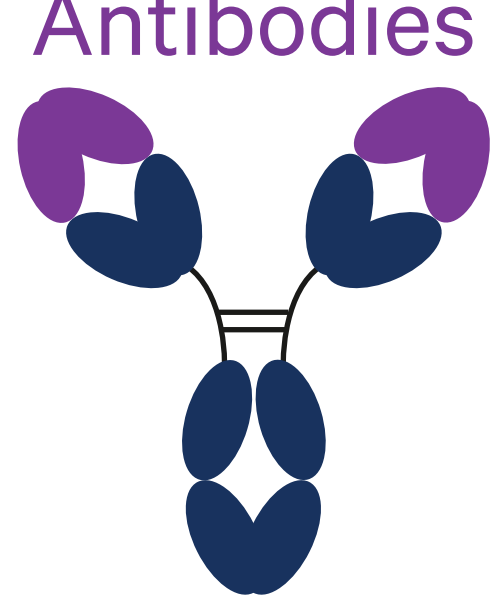

Fragments

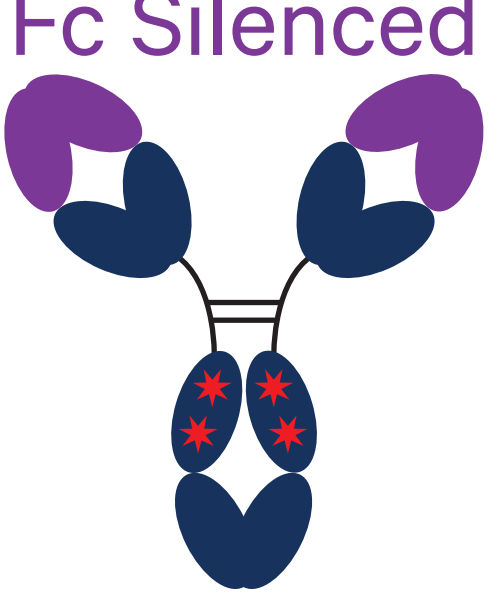

Proteins, Cytokines, Growth Factors, etc.

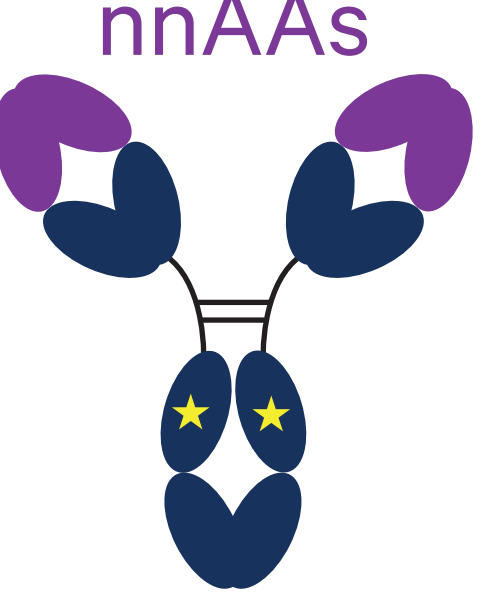
BioDesign Toolbox for Your Therapeutics, Diagnostics, and Drug Delivery Systems

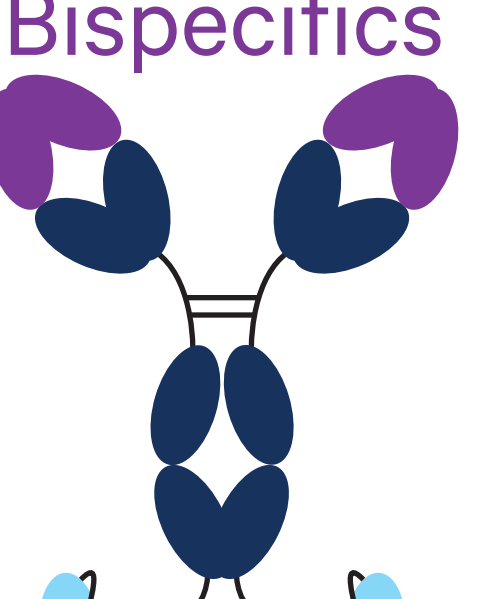
Custom antibody engineering and off-the-shelf biologics

Reliable outsourcing solutions for antibody sequencing, engineering, and expression, and true consultative support for the development of antibody candidates. Antibody engineering capabilities include multispecifics, fragments, scFv conversions, humanization, Fc silencing, and half-life optimization.


Antibodies

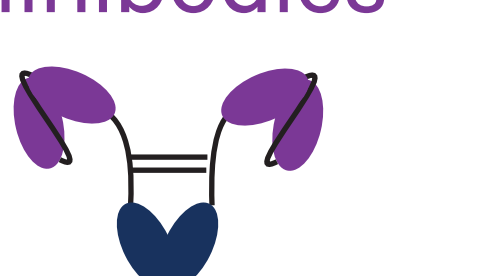

Fc Silenced


nnAAs


Bispecifics


Fab Fragments


Diabodies

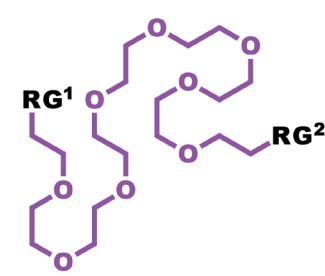

Minibodies

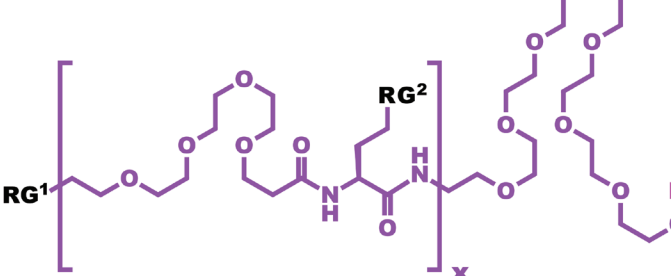

Fc Domains

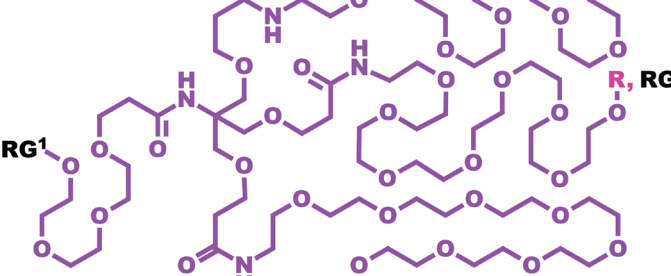
Research-grade biosimilars, isotype controls, and immunotherapy research antibodies are available in off-the-shelf formats and have been enhanced for improved performance *in vivo*.

Ready-to-use linkers and custom synthesis services

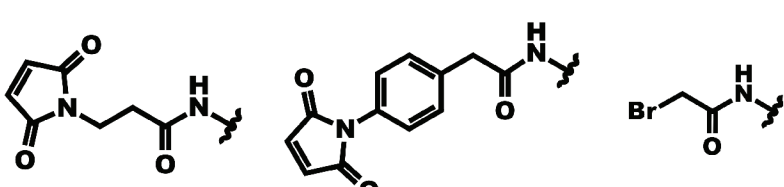
Linker architectures for increasing hydrophilicity, increasing hydrodynamic volume, controlling proximities, shielding undesirable attributes of the payload and/or biologic, adding property modifying functionalities, and carrying multiple payloads.

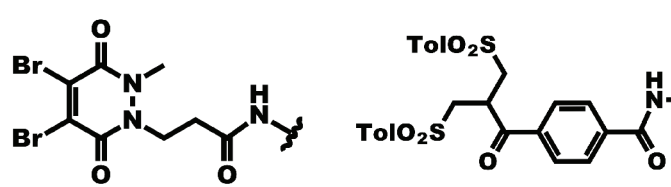

Linear

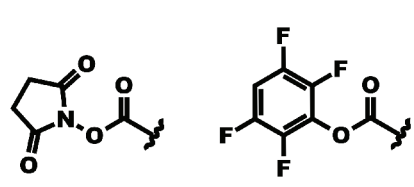

SideWinder

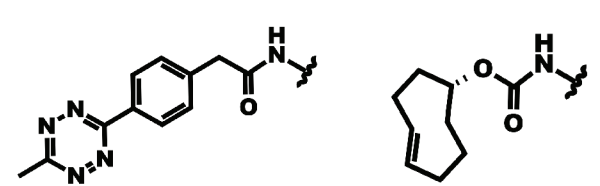

Branched

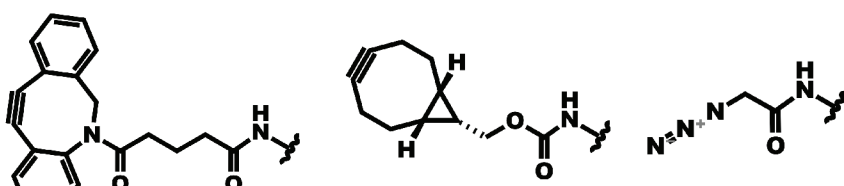
Reactive groups (RG) for stochastic conjugation, site-specific conjugation, biorthogonal conjugation, and enzymatic ligation

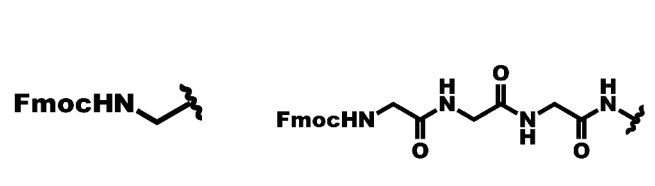

Cysteine Conjugation


Disulfide Re-Bridging


Lysine Acylation

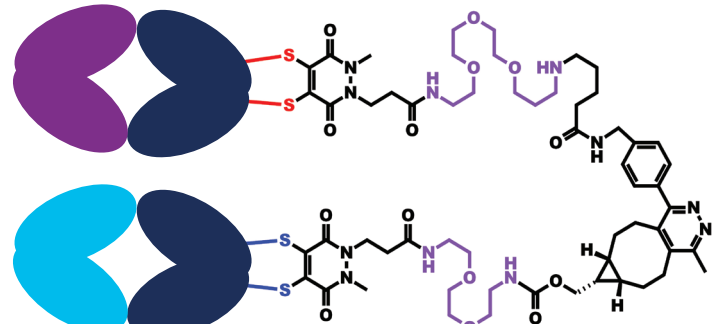

Tetrazine Ligation (IEDDA)


Click Chemistry (SPACC)

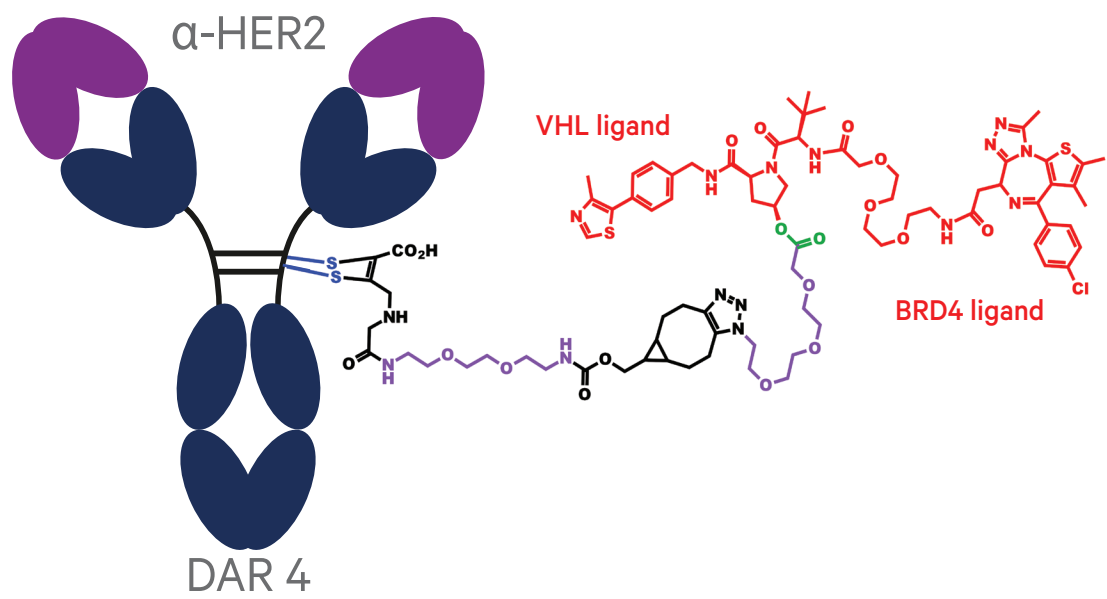

Enzymatic Ligation

Conjugates with Optimized Physiochemical, Pharmacodynamic, and Pharmacokinetic Properties

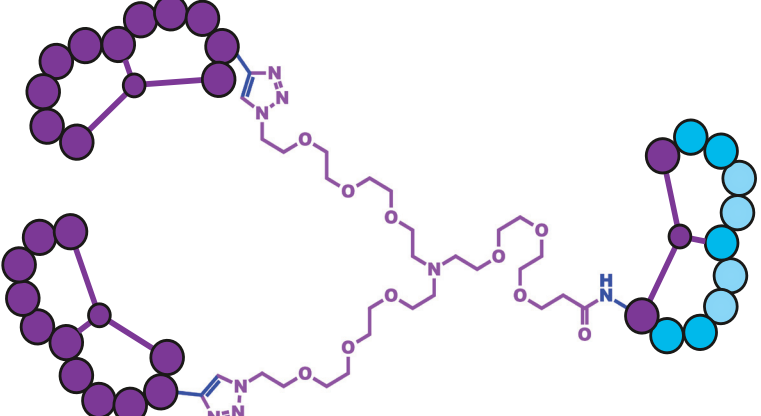
Facile chemical generation and optimization of non-IgG-like bispecifics



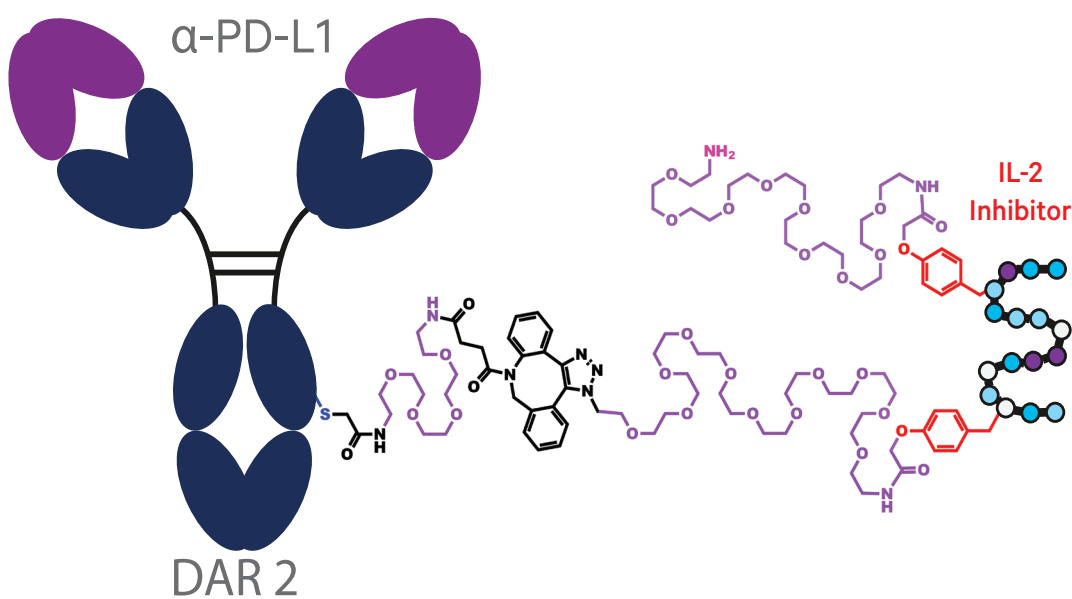
Reduce hydrophobicity and non-specific POI degradation with PROTAC-antibody conjugates



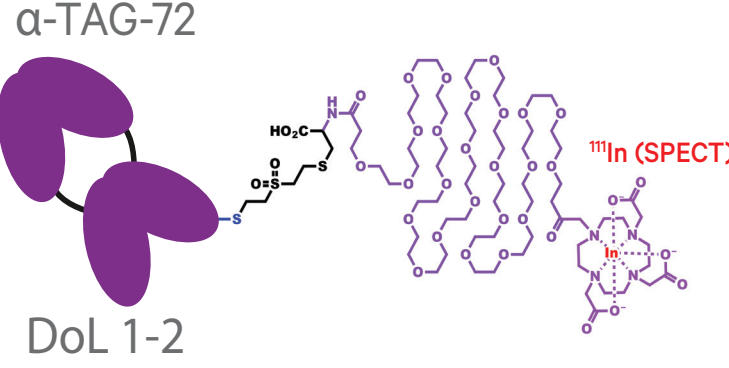
Optimize binding affinity and immune agonism with bicyclic TCE and NKEs



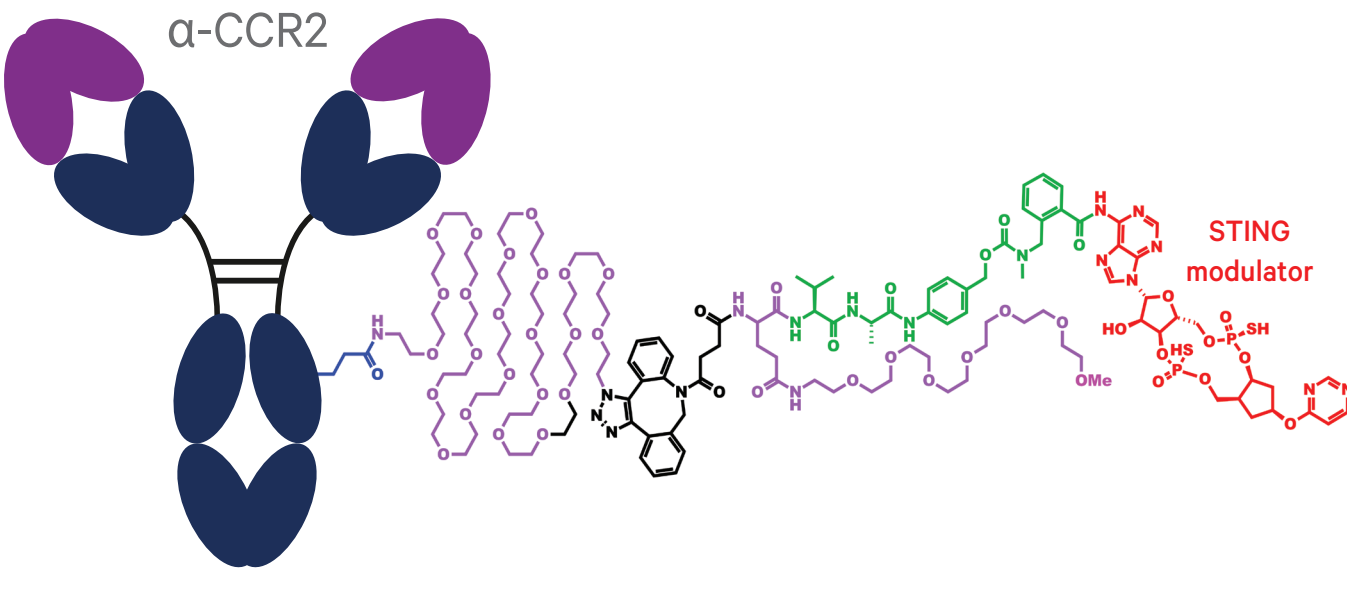
Minimize aggregation and improve activity with checkpoint Inhibitors



Increase hydrodynamic radius and reduce kidney uptake of diabody conjugates



Optimize yield and reduce aggregation with STING agonists



Improve intracellular delivery and target knockdown with siRNA

