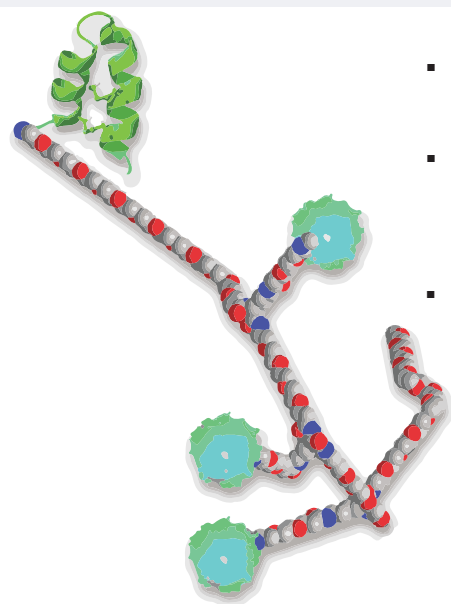


An integrated Conjugation Technology using the dPEG® Chemistry Platform for Improved In Vivo Performance of Biologics

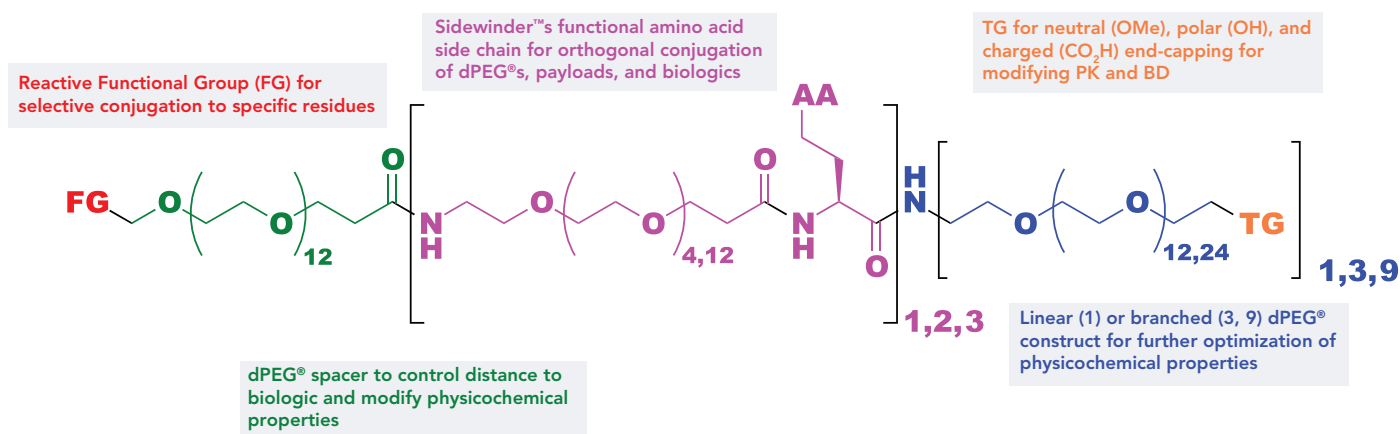
What is a Sidewinder™?

Quanta BioDesign's Sidewinder™ products are members of our payload delivery platform for antibody-drug conjugates (ADCs). Each product in this fully designable, customizable platform consists of three modules:



- A reactive functional group (FG) for selective conjugation to specific residues;
- One or more amino acid side chains (AA) containing orthogonal functional groups for conjugation of dPEG® linkers or spacers, payloads, and biologics; and
- A terminal group (TG) that contains neutral (methoxy), polar (alcohol), or charged (CO₂H) end-capping to modify PK and BD.

STRUCTURAL VARIABLES OF THE dPEG® PLATFORM FOR OPTIMIZING PK AND PD WITH SINGLE MOLECULE PRECISION



Furthermore, Quanta BioDesign's widely used discrete PEG (dPEG®) linkers separate each module (FG, AA, and TG) and provide non-immunogenic, biocompatible spatial control between each element. Our SuperHydrophilic™ dPEG® linkers greatly enhance the water solubility of hydrophobic payloads, allowing for the creation of ADCs with high DAR.

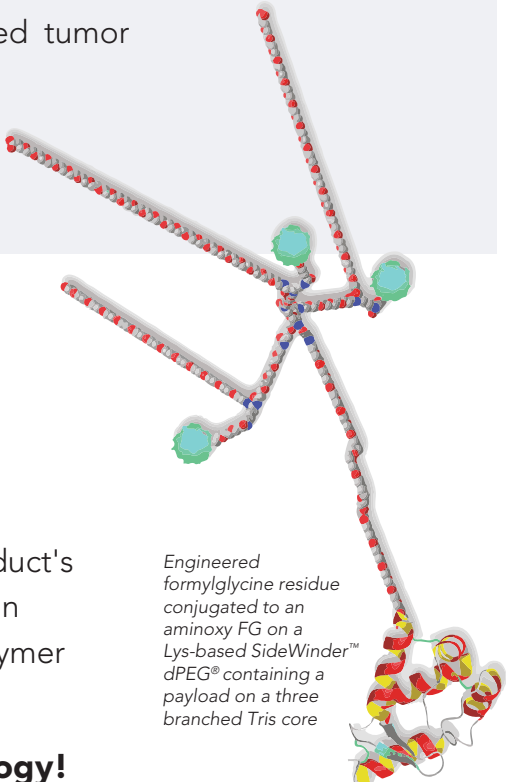
Quanta BioDesign's Sidewinder™ and PK modifier chemistry platforms uniquely and significantly expand the capability of its basic dPEG® linker construct technology platform. These can be tailored to meet specific physical, chemical, and morphological requirements for improving the in vivo performance of drug formulations.

Why Choose dPEG® Technology

Our dPEG® technology has been extensively cited in peer-reviewed journals and numerous patents. Published reports praise dPEG® linker stability and performance and note how dPEG® products enable better target specificity, improved tumor uptake, and lower toxicities. Today more than 12 million clinical diagnostic test kits sold annually incorporate dPEG® constructs. Products using dPEG® compounds are currently in Phase I to III clinical trials and include:

- drug delivery systems,
- PK modifiers for peptides to whole antibodies,
- linkers for cytotoxic warheads, and
- targeting compounds for optimized biodistribution of biologics.

In all cases, the dPEG® construct is critical to the product's performance and outperforms existing bioconjugation paradigms, including those driven by using large polymer systems.



Engineered formylglycine residue conjugated to an aminoxy FG on a Lys-based SideWinder™ dPEG® containing a payload on a three branched Tris core

Creating a Powerful Bridge Between Chemistry and Biology!

Our vision is focused on creating, processing, and commercializing a complete range of dPEG® products. The goal is to provide the full scope of functional applications required by biologists, chemists, and engineers with the incredible benefits that the dPEG® brings to every construct. All our products are designed and manufactured at our Plain City, OH, USA facility.

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