

Excellence in Chemistry

Chemical Linkers: Bringing Solutions Together

Access to Highly Functionalised Linkers for your Drug Discovery Programs

Chemically linking two or more molecules, proteins or other biomolecules, by a covalent bond is useful for drug discovery and delivery and also for ADC conjugation, fluorescent labelling, diagnostics, in vivo imaging and many other discovery applications.

Over the years Charnwood Molecular has gained vast experience in the synthesis and coupling reactions of chemical linkers. Functionalised linkers are carefully chosen according to their chemical reactivity, properties and on their intended applications. Variations of properties within such linkers can include:

- Hydrophilicity or Hydrophobicity (PEG or alkyl chain)
- Chain length

- Bifunctionality: homo- or hetero-
- Chain composition and structure (rigid or free rotation)

These variations can modify the stability and ease of cleavage of the attached moieties.

A selection of linkers now available from Charnwood Molecular are shown below:

$$N_3$$
 OH H_2N N_3

Flexible, Hydrophilic Heterobifunctional

HO
$$N = N$$
 $N = N$ N

Rigid Hydrophilic and Hydrophobic Homobifunctional

Charnwood Molecular's expertise extends to the coupling of biologically active molecules to these functionalised linkers and subsequent purification to required levels. Examples of biotinylation and fluorescent labelling attachments are shown below:

$$\begin{array}{c} & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &$$

$$O$$
 N
 $N = N$
 $N =$

Biotinylation and Fluorescent Labelling molecules

Charnwood Molecular can enable quick access to a range of appropriately designed chemical probes to support, enhance and accelerate our clients' Drug Discovery programs.

Charnwood Molecular Ltd

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