The availability of diverse and pharmacophorically relevant synthetic building blocks remains a critical success factor in the drug design process. Where key building blocks are not commercially available, in-house synthesis consumes vital time and can add considerable cost to the project.

Over the last 50 years, we have built an unparalleled, off-the-shelf collection of building blocks with medicinally important ring systems, many of which are unique to the Maybridge brand. Our primary focus is on heterocyclic chemistry because we believe that such pharmacophore-enhancing molecules are key tools for the drug discovery chemist.

Our focus is to provide medicinal chemists with the ideal building blocks for use in early-phase drug discovery in:

- Structure activity relationship (SAR) development – **Hit-to-Lead building blocks**
- Generating screening libraries for further hit identification/elaboration – **Library Template building blocks**

**Hit-to-Lead building blocks**

Designed by medicinal chemists for medicinal chemists, our extensive range of Hit-to-Lead building blocks are specifically designed for lead optimization through structure activity relationship (SAR) development. We designed our building blocks to provide the following key features:

- Over 300 different heterocyclic ring systems — adds to the pharmacophoric profile of your target molecules
- All synthetically useful functional groups — facilitates the full breadth of chemical synthesis techniques
- Ring regioisomers — enables systematic exploration of structural diversity space and broadens intellectual property protection
- Minimal substitution — provides easier interpretation of SAR

The table above provides examples of the systematic approach taken where a tick represents our offering for that functional group for the corresponding ring system.
Library Template building blocks

Screening libraries are often synthesized using templates, which are building blocks with more than one differentiable functional group.

Our product offering includes all of the features of the Hit-to-Lead building blocks but with two or more functional groups, which are synthetically differentiable through:

- Different reactivity of the functional groups
- The use of orthogonal protecting groups

This makes them ideal for the synthesis of screening libraries or as linkers to direct your proprietary cores toward new regions of diversity space.

Quality, availability and cost effectiveness

- All our building blocks are analyzed in-house using one or more of the following techniques: NMR, HPLC, GC and/or IR
- With more than 95% stock availability, our product offering provides a speedy and reliable source for high-quality building blocks
- Our building blocks are now even more competitively priced, offering excellent value for money

To search for specific building blocks and check stock availability, please visit www.maybridge.com.