

General Fragment Library

Fragment-based lead discovery (FBLD) is an efficient modern approach to drug discovery. It is based on screening relatively small fragment libraries (typically, a few thousand compounds) and identification of potential hits that may bind only weakly to the biological target (millimolar affinities can be considered significant enough). The reduced size and complexity of those molecules allow more efficient chemical space sampling. The subsequent growing and/or combining of the fragments leaves more opportunities to produce a lead with a higher affinity and improved physicochemical properties [1-5].

The Life Chemicals **General Fragment Library** comprises about **61,500** fragments with $MW \leq 300$ and $ClogP \leq 3.0$, readily available in stock for fragment-based drug discovery projects. All reactive and unstable molecules were filtered out.

Additionally, two non-overlapping **Diversity Screening Sets** of **3,200** and **1,600** structurally-diverse fragments were prepared to provide the most-promising drug-like screening compounds for fragment-based lead generation in a convenient manner. These fragment-like molecules possess a wide range of chemical structure dissimilarity and are compliant with in-house MedChem and PAINS structural filters [6-7]. The fragment compounds in these two screening sets are complementary and do not overlap, so they can be combined to create a more extensive fragment diversity library of **4,800** screening compounds.

Our chemical space is further expanded by the **Collection of Tangible Fragments** of over **230,000** virtual fragment-like molecules to be readily synthesized through in-house developed and validated synthetic procedures (feasibility over 75%).



The compound selection can be customized based on your requirements, cherry-picking is available.



Please, contact us at orders@lifechemicals.com for any additional information and price quotations.



Explore also our [Pre-plated Fragment Screening Sets](#).

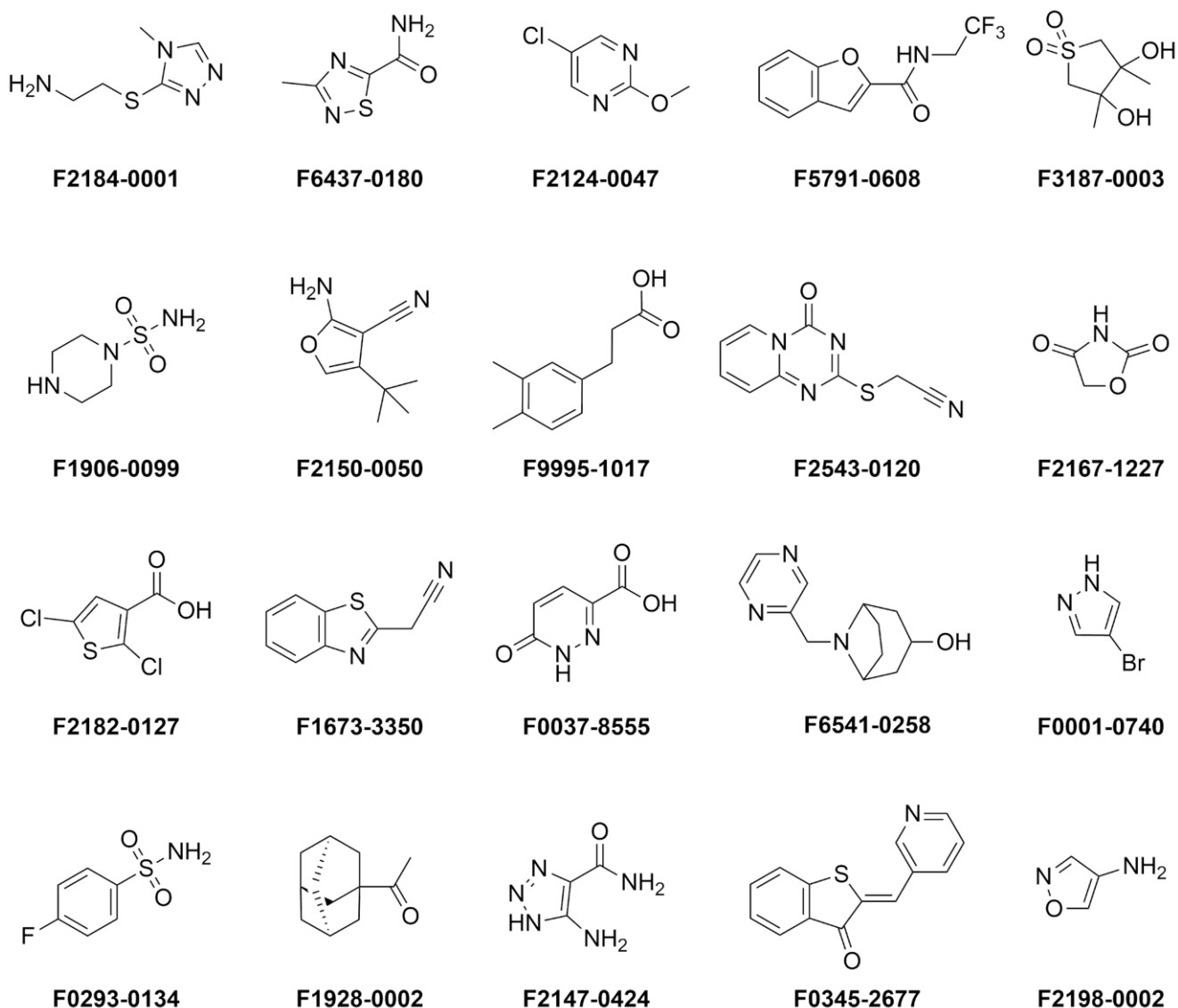


Figure 1. Representative fragment molecules from General Fragment Library

References

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