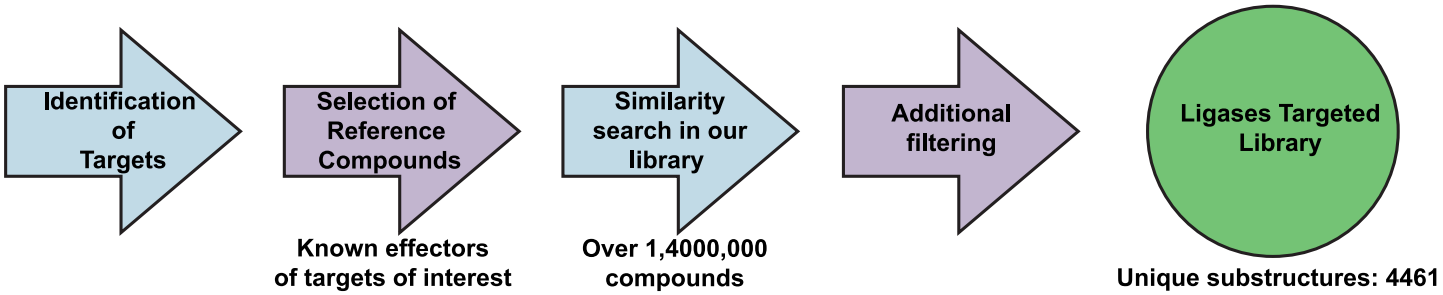
https://vitasmlab.net

LIGASEMARK

Ligases Targeted Library

Ligases are essential enzymes that catalyze the formation of covalent bonds, using ATP to drive critical biological processes like DNA repair, protein degradation, and metabolite conjugation. Their dysfunction underlies diseases ranging from cancer to neurodegeneration, making them promising yet underexploited therapeutic targets. Bacterial ligases like DNA ligase are validated antibiotic targets, but resistance demands novel inhibitors. Similarly, human ligases involved in DNA repair have proven druggable in cancer, yet resistance and selectivity challenges persist. The structural diversity of ligase active sites offers opportunities for selective intervention, particularly in undrugged ligase families. Developing direct ligase inhibitors or activators could address unmet needs in oncology, infection, and autoimmune diseases, expanding the therapeutic toolkit for precision medicine.



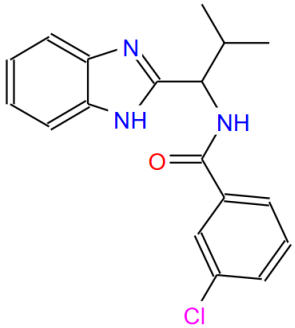
Example Targets:

NEDD8-Activating Enzyme

PARP1

MurD Ubiquitin Ligase MDM2

Bacterial DNA Ligase



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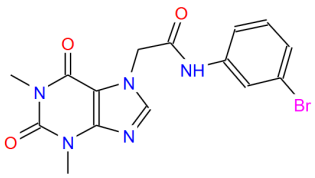

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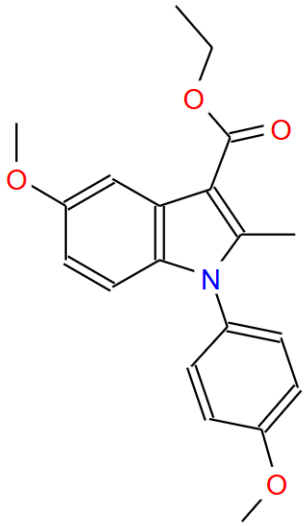
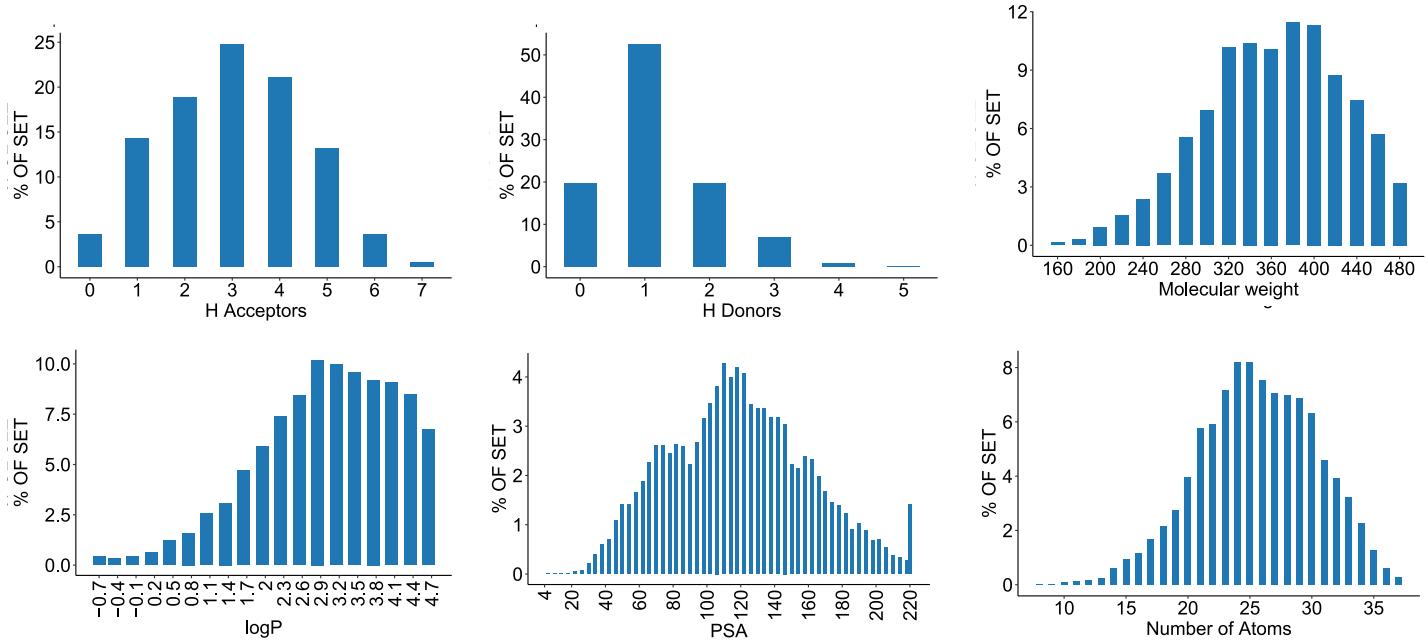


STK744804

Ligases Targeted Library (LIGASEMARK) consists of compounds which were selected based on similarity to known effectors of human and bacterial ligases. This library was designed to provide a potential starting point or to expand ongoing drug discovery project. It is designed in a way that maximizes structural diversity and excludes problematic compounds. This library has 7261 compounds. All compounds follow RO5.

Distribution of Parameters



If you have any specific needs for your project, we can provide specially tailored compound library based on your request.

Have questions or need a quote? Contact Irina Haywood (Ryabushenko) at
irina@vitasmlab.biz
Let's Connect on LinkedIn! Expand your professional network.

We look forward to collaborating with you!
Empowering Your Research, One Molecule at a Time.