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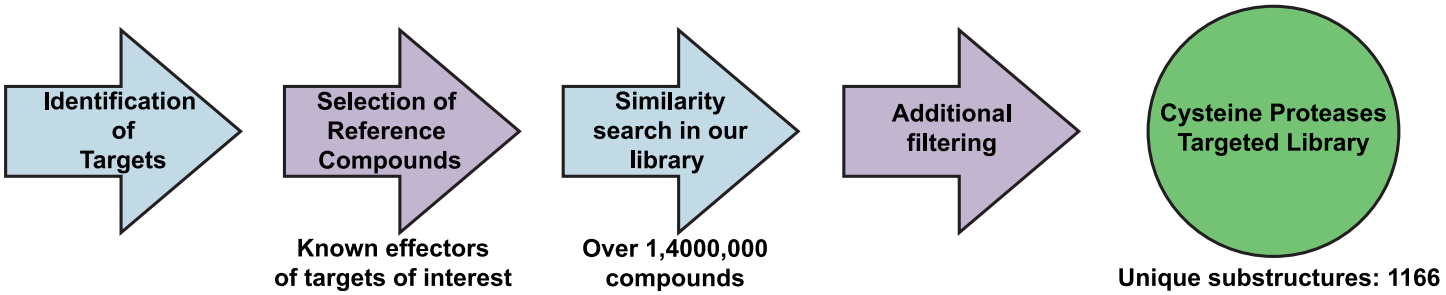
CYPMARK

Cysteine Proteases Targeted Library

Cysteine proteases are essential enzymes involved in protein turnover, immune response, and cellular signaling, playing critical roles in both health and disease. Their dysregulation contributes to cancer metastasis, neurodegenerative disorders, and infectious diseases, making them valuable therapeutic targets. Pathogens like malaria parasites and SARS-CoV-2 rely on cysteine proteases for replication and immune evasion, while human cathepsins drive tumor invasion and inflammatory conditions. Current inhibitors often lack specificity, leading to off-target effects, or face resistance from rapidly mutating viral proteases. The reversible covalent mechanism of cysteine proteases offers unique opportunities for drug design, enabling potent and selective inhibition. Novel compounds could address unmet needs in antibiotic-resistant infections, autoimmune diseases, and precision oncology by targeting understudied proteases or exploiting allosteric sites.

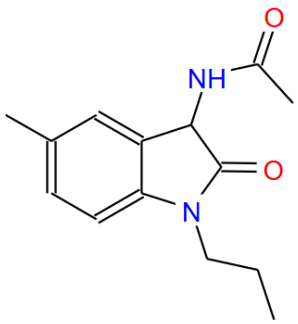


Example Targets:

Cathepsin B Cathepsin K

Caspase-1 Cathepsin S

Calpain-2



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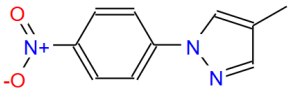

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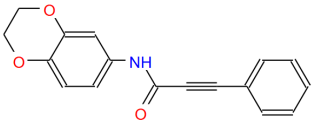
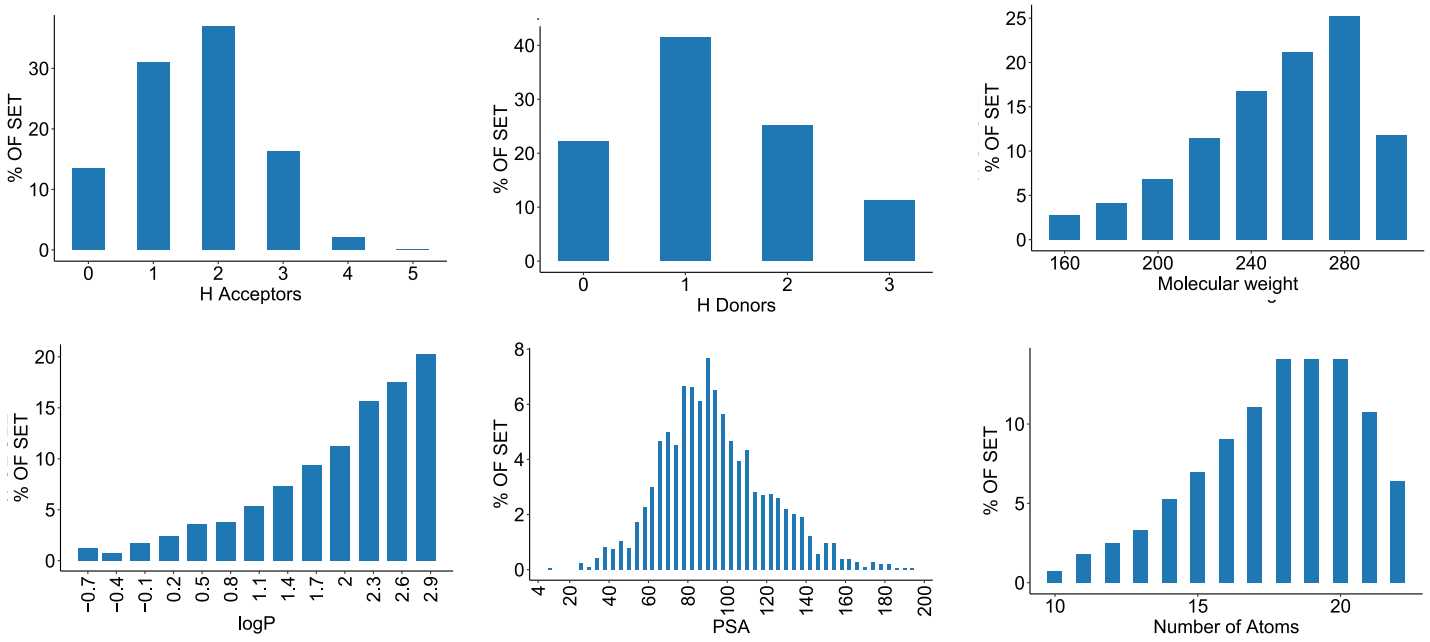


STK478733

Cysterine Proteases Targeted Library (CYPMARK) consists of compounds which were selected based on similarity to known inhibitors of various human cysteine proteases. 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 2192 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.