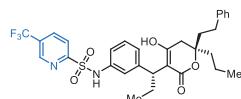


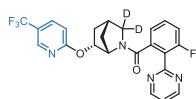
# Analogues of $\text{CF}_3$ -Chloropyridine

## Introduction

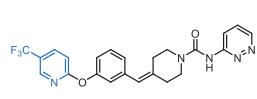
Among recurring drug motifs, 2-substituted 5- $\text{CF}_3$ -pyridine is extremely common, enabling a broad spectrum of interactions within protein pockets.<sup>1,2</sup> To incorporate this fragment, the 2-chloro derivative is widely used, making 2-Cl-5- $\text{CF}_3$ -pyridine one of the most popular building blocks in modern medicinal chemistry research.<sup>3,4</sup> At Enamine, we have prepared an extensive library of analogues of this compound, ready to diversify your compound collections.



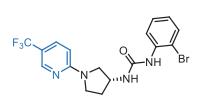
**Tipranavir**  
inhibitor of P450 polyprotein  
FDA approved 2005 against HIV-1  
Boehringer Ingelheim



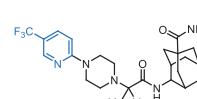
**Tebideutorexant (JN6-1393215)**  
antagonist of the orexin receptor type 1  
Phase 2 trials against depression  
Janssen



**PF-04457845**  
inhibitor of fatty acid amide hydrolase  
Phase 2 trials against cannabis dependence  
Pfizer



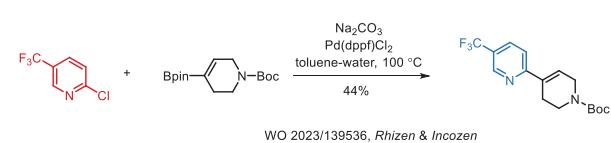
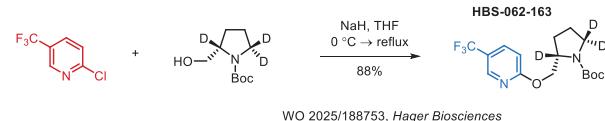
**SB-705498**  
selective blocker of the TRPV1 ion channel  
Phase 2 trials against migraine and rhinitis  
GlaxoSmithKline



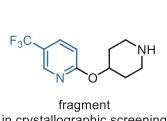
**ABT-384**  
selective inhibitor of 11-β-hydroxysteroid dehydrogenase type 1  
Phase 2 trials against Alzheimer's  
Abbott

## Case studies

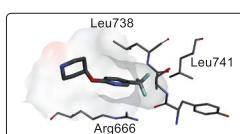
reactions:



structures:



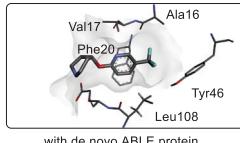
fragment  
in crystallographic screening



PDB entry: 5fza  
with human lysine specific demethylase 5B

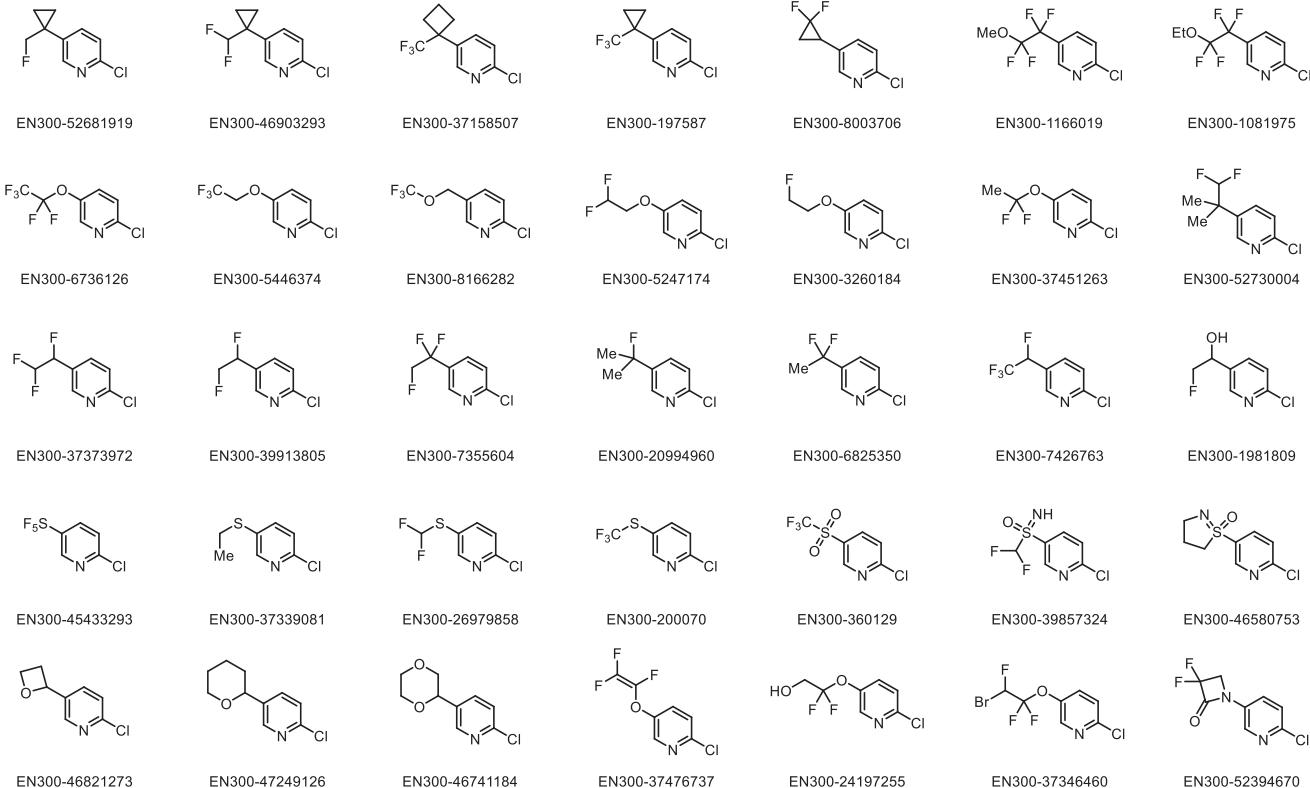
pyridine interactions:  
Arg, Leu, Phe, Val

CF3-group interactions:  
Leu, Val, Tyr



PDB entry: 7hjr  
with de novo ABLE protein

**We offer:** over 100 analogues of 5- $\text{CF}_3$ -2-Cl-pyridine from stock on 5-10 gram scale.



## References

1. G. Sun et al. *Eur. J. Med. Chem.* **2024**, *269*, 116344.
2. M. Di Stefano et al. *Eur. J. Med. Chem.* **2024**, *263*, 115916.

3. A. Angeli et al. *J. Med. Chem.* **2023**, *66*, 1616.
4. Y. Chen et al. *J. Med. Chem.* **2024**, *67*, 12033.

