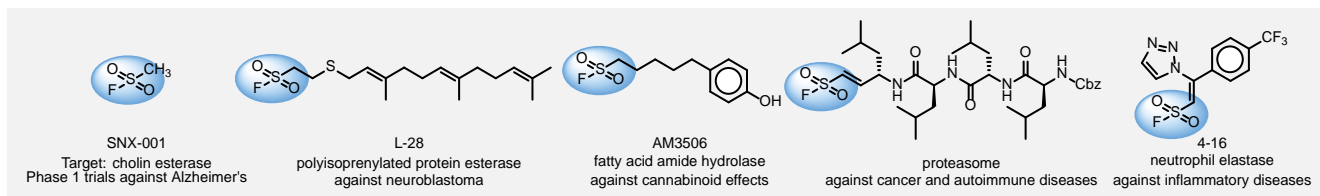


Aliphatic Sulfonyl Fluorides for SuFEx Click Chemistry

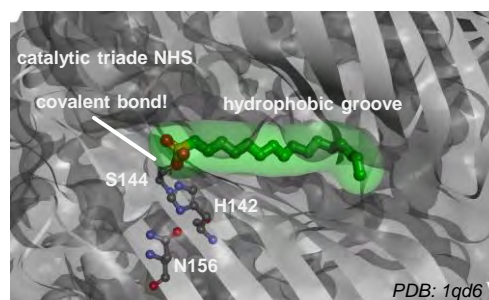
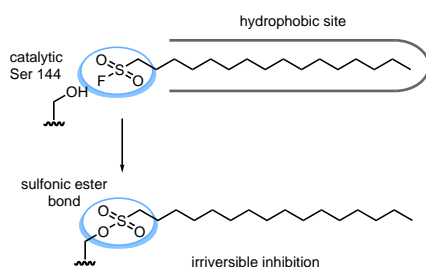
Introduction

Following the original success of the alkaline-azide click chemistry, the sulfur (VI) fluoride exchange (SuFEx) reaction has been introduced as another promising click transformation.¹ Aliphatic sulfonyl fluorides are excellent SuFEx agents due to their moderate reactivity.² These substances tolerate many other functional groups and handling in aqueous buffers. Yet, they react when attached to biomolecules, e.g., due to protein binding, forming strong covalent bonds.³ This mechanism makes them auspicious agents in designing irreversible protein inhibitors and protein labeling probes.⁴⁻⁵

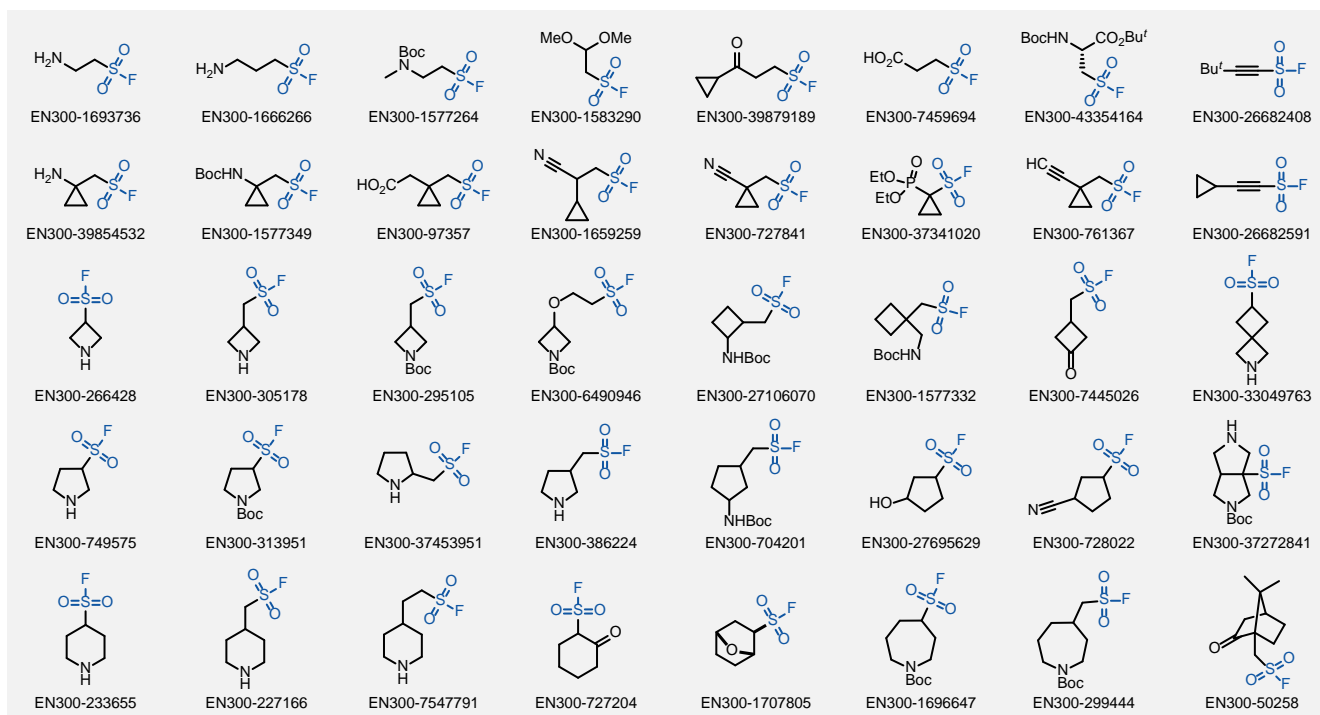


Case study

Hexadecanesulfonyl fluoride (AM 374) binds to the hydrophobic groove of the inner interface formed by homodimer of outer membrane phospholipase A. Subsequent formation of a sulfonic ester with the catalytic serine-144 leads to irreversible inhibition.⁶



We offer: more than 50 aliphatic sulfonyl fluorides from stock on a 5-10 g scale



References

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