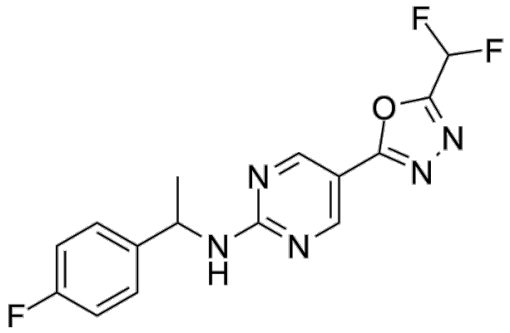
Product Data Sheet

Product Name: SE-7552
Cat. No.: GC73944

Chemical Properties

Cas. No.	2243575-79-1		
Formula	$C_{15}H_{12}F_3N_5O$	M.Wt	335.28
Solubility	DMSO : 100 mg/mL (298.26 mM; Need ultrasonic)	Storage	-20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			



Background

SE-7552, a 2-(difluorometl)-1,3,4-oxadiazole (DFMO) derivative, is an orally active, highly selective, non-droxamate HDAC6 inhibitor with an IC50 of 33 nM. SE-7552 is greater than 850-fold selectivity

versus all other known HDAC isozymes. SE-7552 is capable of blocking multiple myeloma growth in vivo. SE-7552 acts as an anti-obesity agent in diet-induced obese mice.

SE-7552 (30 mg/kg; a single oral dose) increases the levels of acetylated α-tubulin for over 24 hours in mice. SE-7552 has no effect on the acetylation of H3 (a biomarker for inhibition of Class I HDACs) [1]. SE-7552 (10 mg/kg; orally; daily) combinated with Pomalidomide significantly delays tumor growth in comparison to Pomalidomide alone, as well as enhanced the survival of the mice with human H929 MM cells[1]. SE-7552 demonstrated superior PK, with a maximum exposure of 597 ng/ml and a half-life of 7.2 hours after a single oral dose of 5 mg/kg in the mouse[1].

References:
[1]. Jason A Holt, et al. SE-7552, a Highly Selective, Non-droxamate Inhibitor of Histone Deacetylase-6 Blocks Multiple Myeloma Growth In Vivo. Blood (2018) 132 (Supplement 1): 3215. [2]. Beate König, et al. 2-(Difluorometl)-1,3,4-oxadiazoles: The Future of Selective Histone Deacetylase 6 Modulation ACS Pharmacol. Transl. Sci. 2024, February 20.