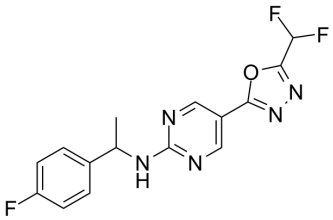
SE-7552

Cat. No.:	HY-161305
CAS No.:	2243575-79-1
Molecular Formula:	$C_{15}H_{12}F_3N_5O$
Molecular Weight:	335.28
Target:	HDAC
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	SE-7552, a 2-(difluoromethyl)-1,3,4-oxadiazole (DFMO) derivative, is an orally active, highly selective, non-hydroxamate HDAC6 inhibitor with an IC_{50} 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[1][2].
IC_{50} & Target	HDAC6 33 nM (IC_{50})
In Vivo	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 (HY-10984; 1 mg/kg; IP daily) 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]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jason A Holt, et al. SE-7552, a Highly Selective, Non-Hydroxamate Inhibitor of Histone Deacetylase-6 Blocks Multiple Myeloma Growth In Vivo. Blood (2018) 132 (Supplement 1): 3215.

[2]. Beate König, et al. 2-(Difluoromethyl)-1,3,4-oxadiazoles: The Future of Selective Histone Deacetylase 6 Modulation? ACS Pharmacol. Transl. Sci. 2024, February 20.

Caution: Product has not been fully validated for medical applications. For research use only.

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