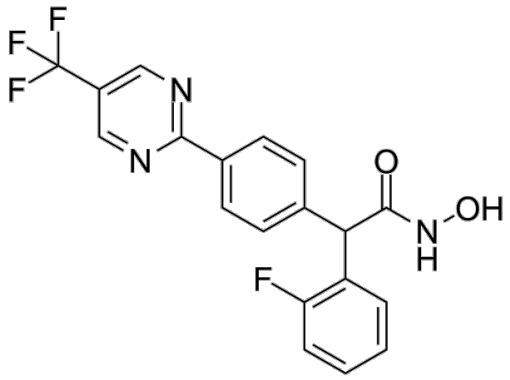
Product Data Sheet

Product Name: CHDI-390576
Cat. No.: GC64942

Chemical Properties

Cas. No.	1629729-98-1		
Formula	C19H13F4N3O2	M.Wt	391.32
Solubility	DMSO : 250 mg/mL (638.86 mM; Need ultrasonic)	Storage	Store at -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



Protocol

HDAC4	HDAC5	HDAC7	hHDAC9	HDAC1	HDAC3	HDAC8	hHDAC6
54nM(IC_{50})	60nM(IC_{50})	31nM(IC_{50})	50nM(IC_{50})	39.7μM(IC_{50})	25.8μM(IC_{50})	9.1μM(IC_{50})	6.2μM(IC_{50})

Background

CHDI-390576, a potent, cell permeable and CNS penetrant class IIa histone deacetylase (HDAC)

Caution: Product has not been fully validated for medical applications. For research use only.
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inhibitor with IC50s of 54 nM, 60 nM, 31 nM, 50 nM for class IIa HDAC4, HDAC5, HDAC7, HDAC9, respectively, shows >500-fold selectivity over class I HDACs (1, 2, 3) and ~150-fold selectivity over HDAC8 and the class IIb HDAC6 isoform[1].

The affinity (Kd) of CHDI-390576 to the catalytic domain of immobilized HDAC4 is 80 nM[1].CHDI-390576 inhibits class I HDACs (1, 3, 8) and class IIb HDAC6 isoforms with IC50s of 39.7μM, 25.8 μM, 9.1 μM, 6.2 μM, respectively[1].

[1]. Luckhurst CA, et al. Development and characterization of a CNS-penetrant benzhydryl hydroxamic acid class IIa histone deacetylase inhibitor. Bioorg Med Chem Lett. 2019 Jan 1;29(1):83-88.

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