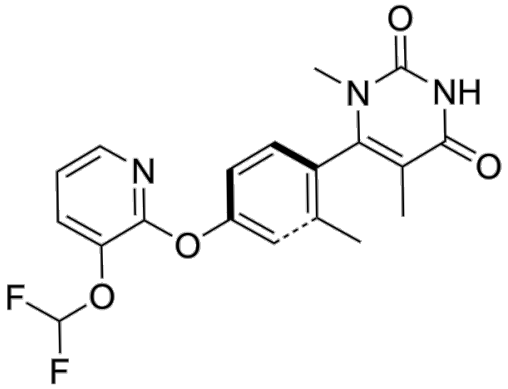
Product Data Sheet

Product Name: (+)-Razpipadon
Cat. No.: GC79286

Chemical Properties

Cas. No.	1643489-51-3		
Formula	$C_{19}H_{17}F_2N_3O_4$	M.Wt	389.35
Solubility	DMSO: 100 mg/mL (256.84 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



Background

(+)-Razpipadon ((+)-PW0464) is a selective D1 dopamine receptor agonist belonging to non-catechol compounds. (+)-Razpipadon activates the G protein pathway, while restricting β-arrestin coupling through the proximity effect of fluoromethyl-TM5, thereby achieving specific regulation of downstream pathways. (+)-Razpipadon can be used in studies related to Parkinson's disease [1] [2].

Caution: Product has not been fully validated for medical applications. For research use only.
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In Vitro, (+)-Razpipadon is a G protein-biased agonist of human D1R that activates the G protein signaling pathway. Its potency is slightly lower than that of Tavapadon, but it cannot effectively activate the β-arrestin pathway[1].

References:

[1]. Teng X, et al. Ligand recognition and biased agonism of the D1 dopamine receptor. Nat Commun. 2022;13(1):3186. Published 2022 Jun 8.
[2]. Sibley D R, et al. Novel Cryo-EM structures of the D1 dopamine receptor unlock its therapeutic potential[J]. Signal Transduction and Targeted Therapy, 2021, 6(1): 205.
[3]. Kumar S, et al. Discovery and structure - activity relationships of 2,4,5-trimethoxyphenyl pyrimidine derivatives as selective D5 receptor partial agonists. Bioorg Chem. 2024;153:107809.

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