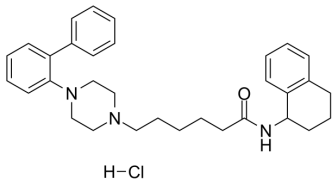
LP 12 hydrochloride

Cat. No.:	HY-103105
CAS No.:	1185136-22-4
Molecular Formula:	$C_{32}H_{40}ClN_3O$
Molecular Weight:	518.13
Target:	5-HT Receptor
Pathway:	GPCR/G Protein; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	LP 12 hydrochloride (compound 21) is a potent and selective 5-HT7 receptor agonist with a K_i of 0.13 nM. LP 12 hydrochloride displays selectivity for 5-HT7 over D2, 5-HT1A and 5-HT2A receptors (K_i values are 224 nM, 60.9 nM and >1000 nM, respectively)[1][2].		
IC_{50} & Target	5-HT_7 Receptor 0.13 nM (IC_{50})	5-HT_{1A} Receptor 60.9 nM (IC_{50})	5-HT_{2A} Receptor 1464 nM (IC_{50})
In Vitro	LP 12 hydrochloride (0.13 nM; spermatozoa) increases the percentage of hyperactivated spermatozoa. LP 12 hydrochloride do not affect straight-line velocity (VSL), curvilinear velocity (VCL), average-path velocity (VAP), linearity (LIN), straightness (STR), wobbler coefficient (WOB), amplitude of lateral head displacement (ALH), and beat-cross frequency (BCF)[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

[1]. Sugiyama Y, et, al. Effects of 5-hydroxytryptamine on spermatozoal hyperactivation and in vitro fertilization in mice. J Reprod Dev. 2019 Dec 18;65(6):541-550.

[2]. Marcello Leopoldo, et al. Structure-activity relationship study on N-(1,2,3,4-tetrahydronaphthalen-1-yl)-4-aryl-1-piperazinehexanamides, a class of 5-HT7 receptor agents. J Med Chem. 2007 Aug 23;50(17):4214-21.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA