Product Data Sheet

Product Name: CPPHA
Cat. No.: GC13426

Chemical Properties

Cas. No.	693288-97-0		
Chemical Name	N-(4-chloro-2-((1,3-dioxoisoindolin-2-yl)methyl)phenyl)-2-hydroxybenzamide		
SMILES	O=C(N1CC2=C(NC(C3=CC=CC=C3O)=O)C=CC(Cl)=C2)C4=CC=CC=C4C1=O		
Formula	$C_{22}H_{15}ClN_2O_4$	M.Wt	406.82
Solubility	DMSO: 100mM	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	CPPHA		

Background

Description: IC50 Value: N/A CPPHA is a selective positive allosteric modulator of mGluR5 receptor. It has no agonist activity alone, but reduces threshold response and shifts dose-response curves to glutamate, quisqualate, and DHPG by 4- to 7-fold to the left in recombinant CHO cells expressing human or rat mGluR5. in vitro: The selective mGlu5 receptor positive allosteric modulator, N-{4-chloro-2-[(1,3-dioxo-1,3-dihydro-2H-isoindol-2yl)-methyl]phenyl}-2-hydrobenzamide (CPPHA) potentiated the response to a subthreshold concentration of 3,5-dihydroxy-phenylglycine (DHPG) on extracellular signal-regulated protein kinase (ERK) and cyclic-AMP responsive element-binding protein (CREB) activity, as well as N-methyl d-aspartate (NMDA) receptor subunit NR1 phosphorylation in cortical and hippocampal slices [1]. CPPHA potentiated threshold responses to glutamate in fluorometric Ca(2+) assays 7- to 8-fold with EC(50) values in the 400 to 800 nM range, and at 10 microM shifted mGluR5 agonist concentration-response curves to glutamate, quisqualate, and (R,S)-3,5-dihydroxyphenylglycine (DHPG) 4- to 7-fold to the left. CPPHA (10 microM) potentiated NMDA receptor currents in

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hippocampal slices induced by threshold levels of DHPG, whereas having no effect on these currents by itself. Similarly, 10 microM CPPHA also potentiated mGluR5-mediated DHPG-induced depolarization of rat subthalamic nucleus neurons [2]. CPPHA induced an increase in basal mGluR5-mediated ERK1/2 phosphorylation and potentiated the effect of low concentrations of agonists. In contrast, CPPHA significantly decreased ERK1/2 phosphorylation induced by high concentrations of agonists [3]. in vivo: N/A Toxicity: N/A Clinical trial: N/A