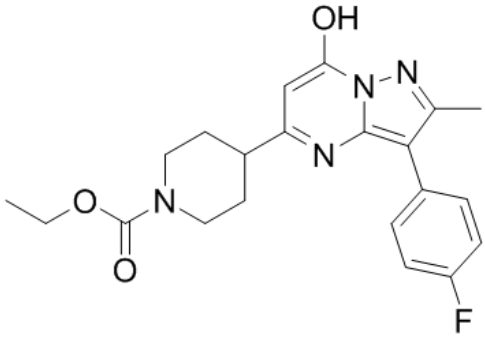
Product Data Sheet

Product Name: TRPC6-IN-1
Cat. No.: GC30546

Chemical Properties

Cas. No.	901715-05-7		
SMILES	O=C(N1CCC(C2=NC3=C(C4=CC=C(F)C=C4)C(C)=NN3C(O)=C2)CC1)OCC		
Formula	$C_{21}H_{23}FN_4O_3$	M.Wt	398.43
Solubility	Soluble in DMSO	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

Product Data Sheet

TRPC6-IN-1 is a Transient Receptor Potential Canonical 6 Channel (TRPC6) inhibitor, with an EC50 of 4.66 μM.

TRPC6-IN-1 (compound 4o) rises in the TRPC6 cells in a concentration dependent manner, with a mean EC50 value of 4.66±0.03 μM, demonstrating a comparable activity of the compound on TRPC6 as the original lead. TRPC6-IN-1 is also tested on HEK293 cells that co-expressed μ opioid receptor (MOR) and TRPC4β, which belongs to a different subgroup of TRPC channels than TRPC3/6/7. Upon stimulation by a μ agonist, these cells show a robust increase in [Ca2+]i. TRPC6-IN-1 also evokes whole-cell currents in HEK293 cells that express human TRPC3. TRPC6-IN-1 elicits concentration dependent current increases in the TRPC7 cells. Different from TRPC6, the currents show some desensitization in the high TRPC6-IN-1 concentrations (10 and 30 μM) at both negative and positive potentials even though the low Ca2+ (0.1 mM) bath solution is used. Nonetheless, a stepwise increase in the TRPC7 currents is still detected at <10 μM TRPC6-IN-1[1].

[1]. Qu C, et al. Pyrazolopyrimidines as Potent Stimulators for Transient Receptor Potential Canonical 3/6/7 Channels. J Med Chem. 2017 Jun 8;60(11):4680-4692.

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