Product Data Sheet

Product Name: FPH1 (BRD-6125)
Cat. No.: GC14922

Chemical Properties

Cas. No.	708219-39-0		
SMILES	CC1=C(C=C(C=C1)Cl)N(CC(=O)NC2=C(C=CC=C2F)F)S(=O)(=O)C		
Formula	$C_{16}H_{15}ClF_2N_2O_3S$	M.Wt	388.82
Solubility	≥ 38.9mg/mL in DMSO	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	FPH1 (BRD-6125)		

Protocol

Cell experiment [1]:

Cell lines	Primary human hepatocytes
Preparation method	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37℃ for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20℃ for several months.
Reacting condition	20 μM; days 1 and 5

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Applications	In primary human hepatocytes, FPH1 (BRD-6125) induced functional proliferation of hepatocytes and thus might be useful for expanding mature human primary hepatocytes. FPH1 induced an increase in hepatocyte nuclei count and/or elevated the number of nuclei undergoing mitosis in a concentration dependent way.

References:

[1] Shan J, Schwartz R E, Ross N T, et al. Identification of small molecules for human hepatocyte expansion and iPS differentiation. Nature chemical biology, 2013.

Background

FPH1 is a small molecule that promotes the functional proliferation of primary hepatocytes [1].

FPH1 belongs to the functional proliferation hits which are screened out by their ability to permit renewable sourcing of functional human hepatocytes. This ability of FPH1 is not dependent on the donors of the hepatocytes. It has been found that FPH1 was active against the primary human hepatocytes from six cell sources of genetically diverse individuals. Besides that, FPH1 can affect the hepatocyte functions with promoting albumin secretion during the differentiation of iPS cells into iHeps. Moreover, treatment of FPH1 also resulted in the increase of CYP3A4 levels and the decrease of AFP secretion [1].

References:
[1] Shan J, Schwartz R E, Ross N T, et al. Identification of small molecules for human hepatocyte expansion and iPS differentiation. Nature chemical biology, 2013.

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