

Product Data Sheet

Product Name: Anguizole

Cat. No.: GC14937

Chemical Properties

Cas. No. 442666-98-0

Chemical Name 7-[chloro(difluoro)methyl]-5-(furan-2-yl)-N-(thiophen-2-ylmethyl)pyrazolo[1,5-a]pyrimidine-2-carboxamide

SMILES C1=COC(=C1)C2=NC3=CC(=NN3C(=C2)C(F)(F)Cl)C(=O)NCC4=CC=CS4

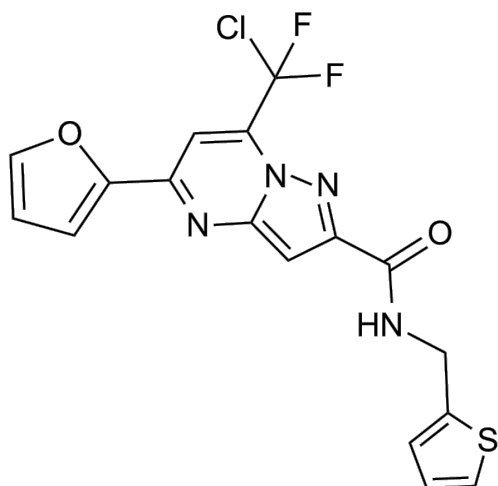
Formula $C_{17}H_{11}ClF_2N_4O_2S$ M.Wt 408.81

Solubility DMSO : 50 mg/mL (122.31 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

Anguizole is a selective inhibitor of NS4B with IC₅₀ value of 310 nM [1].

NS4B (nonstructural protein 4B) is a viral protein which was found in hepatitis C virus and was a key regulator in HCV replication complex formation. It is reported that NS4B plays a pivotal role in HCV

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replication via inducing a specific membrane rearrangement and designating membranous web. NS4B-AH2, comprising amino acid 42 to 66, is identified as a major regulator for NS4B oligomerization [2].

Anguizole is a potent NS4B inhibitor and targets the second amphipathic helix of NS4B (NS4B-AH2). When tested with HCV virus, anguizole treatment significantly disrupted NS4B-AH2-mediated biological functions of NS4B which played an important role in HCV life cycle [3]. In Huh7.5 cells transferring a plasmid expressing NS4B fused in frame with GFP, 5 μ M anguizole treatment (48 hours) altered the distribution of NS4B MAF pattern which inhibited HCV life cycle [1].

References:

- [1]. Bryson, P.D., et al., A small molecule inhibits HCV replication and alters NS4B's subcellular distribution. *Antiviral Res*, 2010. 87(1): p. 1-8.
- [2]. Gouttenoire, J., et al., Aminoterminal amphipathic alpha-helix AH1 of hepatitis C virus nonstructural protein 4B possesses a dual role in RNA replication and virus production. *PLoS Pathog*, 2014. 10(10): p. e1004501.
- [3]. Choi, M., et al., A hepatitis C virus NS4B inhibitor suppresses viral genome replication by disrupting NS4B's dimerization/multimerization as well as its interaction with NS5A. *Virus Genes*, 2013. 47(3): p. 395-407.

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