

Product Data Sheet

Product Name: T 5601640

Cat. No.: GC16355

Chemical Properties

Cas. No. 924473-59-6

Chemical Name 3-methyl-N-(3-((3-(trifluoromethyl)phenyl)carbamoyl)phenyl)isoxazole-5-carboxamide

SMILES O=C(C1=CC=CC(NC(C2=CC(C)=NO2)=O)=C1)NC3=CC(C(F)(F)F)=CC=C3

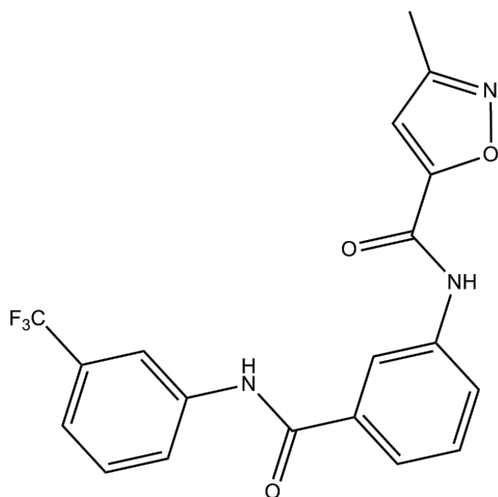
Formula $C_{19}H_{14}F_3N_3O_3$ M.Wt 389.33

Solubility DMF: 30 mg/ml, DMF:PBS(pH7.2) (1:2): 0.33 mg/ml, DMSO: 20 mg/ml 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



Protocol

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

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Cell experiment: T56-LIMKi can induce inhibition of cofilin phosphorylation and Panc-1 tumor shrinkage in vivo. Mice treated with T56-LIMKi (60 mg/kg) shows a significant decrease in tumor volume compared to control[1].

Animal experiment: Mice: T56-LIMKi is dissolved in 0.5% carboxymethylcellulose solution. Mice are implanted with xenografted Panc-1 cells. Treatment is started 7 days later. Mice in the two experimental groups are each treated with a daily oral non-toxic dose of T56-LIMKi (30 or 60 mg/kg in gavage) and mice in the control group receives only the vehicle (0.5% CMC) in the gavage[1].

References:

- [1]. Rak R, et al. Novel LIMK2 Inhibitor Blocks Panc-1 Tumor Growth in a mouse xenograft model. Oncoscience. 2014 Jan 1;1(1):39-48. eCollection 2014.
- [2]. Mashiach-Farkash E, et al. Computer-based identification of a novel LIMK1/2 inhibitor that synergizes with salirasib to destabilize the actin cytoskeleton. Oncotarget. 2012 Jun;3(6):629-39.

Background

T56-LIMKi is a selective inhibitor of LIMK2; inhibits the growth of Panc-1 cells with an IC₅₀ of 35.2 μ M.

T56-LIMKi efficiently inhibits the growth of ST88-14, U87, Panc-1 cells, A549 lung cancer cells with IC₅₀ values of 18.3, 7.4, 35.2 and 90 μ M, respectively. T56-LIMKi decreases phosphorylated cofilin (p-cofilin) levels and thus inhibits growth of several cancerous cell lines, including those of pancreatic cancer, glioma and schwannoma[1]. It blocks the phosphorylation of cofilin which leads to actin severance and inhibition of tumor cell migration, tumor cell growth, and anchorage-independent colony formation in soft agar. T56-LIMKi (10-50 μ M) reduces p-cofilin in a dose-dependent manner in NF1^{-/-}-MEFs with an IC₅₀ of 30 μ M. Notably, the inhibitor does not affect the amounts of total cofilin. 50 μ M T56-LIMKi causes a statistically significant reduction in the number of cells exhibiting stress fibers[2].

T56-LIMKi can induce inhibition of cofilin phosphorylation and Panc-1 tumor shrinkage in vivo. Mice

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