

Product Data Sheet

Product Name: ELR510444

Cat. No.: GC16827

Chemical Properties

Cas. No. 1233948-35-0

Chemical Name N-(5-(5-cyanothiophen-2-yl)-2-methylphenyl)-4-methylbenzenesulfonamide

SMILES CC1=CC=C(S(NC2=C(C=CC(C3=CC=C(S3)C#N)=C2)C)(=O)=O)C=C1

Formula $C_{19}H_{16}N_2O_2S_2$

M.Wt 368.47

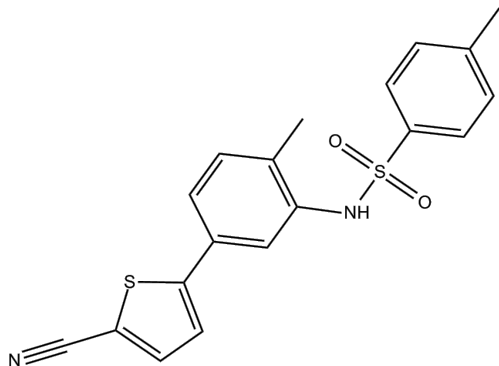
Solubility $\geq 11.9\text{mg/mL}$ in DMSO

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

Microtubules are involved in nucleic and cell organization, division of intracellular structure, and intracellular transport, as well as ciliary and flagellar motility. Microtubule-targeting agents are some of the most effective chemotherapeutic drugs used in the clinic today. ELR510444 is a novel microtubule disruptor with multiple mechanisms of action.

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

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In vitro: ELR510444 has potent microtubuledisrupting activity, causing a loss of intracellular microtubules and the formation of aberrant mitotic spindles and leading to mitotic arrest and apoptosis of cancer cells. ELR510444 inhibited cell proliferation, inhibited the rate and extent of purified tubulin assembly potently, and displaced colchicine from tubulin, revealing that the drug directly interacts with tubulin at the colchicine-binding site [1].

In vivo: ELR510444 also shows potent antitumor activity in the MDA-MB-231 xenograft model with at least a 2-fold therapeutic window [1].

Clinical trial: Up to now, ELR510444 is still in the preclinical development stage.

Reference:

[1] Risinger AL, Westbrook CD, Encinas A, Mülbaier M, Schultes CM, Wawro S, Lewis JD, Janssen B, Giles FJ, Mooberry SL. ELR510444, a novel microtubule disruptor with multiple mechanisms of action. J Pharmacol Exp Ther. 2011 Mar;336(3):652-60.

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