

Product Data Sheet

Product Name: LRE1
Cat. No.: GC33296

Chemical Properties

Cas. No. 1252362-53-0

SMILES NC1=NC(N(CC2=CC=CS2)C3CC3)=CC(Cl)=N1

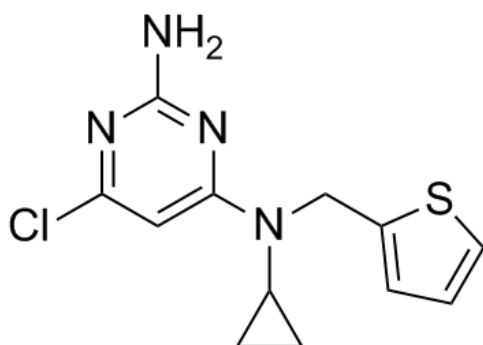
Formula $C_{12}H_{13}ClN_4S$ M.Wt 280.78

Solubility DMSO: 125 mg/mL (445.19 mM) 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

LRE1 is a specific and allosteric inhibitor of soluble adenylyl cyclase.

LRE1 binds to the bicarbonate activator binding site and inhibits soluble adenylyl cyclase (sAC) via a unique allosteric mechanism[1]. LRE1 prevents sAC-dependent processes in cellular and physiological systems and facilitates exploration of the therapeutic potential of sAC inhibition[1]. LRE1 (0.5-100 µM, 60 minutes) inhibits sperm and mitochondrial functions of sAC[1]. Western Blot Analysis[1] Cell Line: Mouse cauda sperm Concentration: 0.5-100 µM Incubation Time: 60 minutes

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

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|Result:|LRE1 inhibits sAC dependent sperm capacitation[1].

[1]. Ramos-Espiritu L, et al. Discovery of LRE1 as a specific and allosteric inhibitor of soluble adenylyl cyclase. Nat Chem Biol. 2016 Oct;12(10):838-44.

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