

SRI-37240

Chemical Properties

CAS No. : 883956-47-6

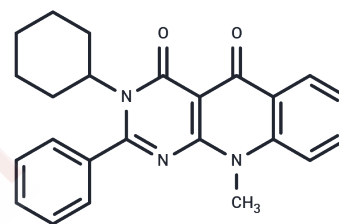
Formula: C₂₄H₂₃N₃O₂

Molecular Weight: 385.46

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	SRI-37240 is a potent inhibitor of premature termination codons (PTCs) with read-across activity that induces a prolonged pause at the termination codon and inhibits PTCs associated with cystic fibrosis. SRI-37240 can be used to study PTC-related diseases.
Targets(IC50)	CFTR
In vitro	SRI-37240 (1, 3, 10, and 30 μ M; 48 h) enhances CFTR-dependent chloride conductance in a concentration-dependent manner, activated by Forskolin and inhibited by CFTR Inh-172 [1]. At 10 μ M over 72 h, it significantly increases levels of both mature, fully glycosylated and immature CFTR protein forms in 16HBEge cells, especially when used with G418 (100 μ M) [1]. Additionally, at 10 μ M for 24 h, SRI-37240 alters cellular translation termination at premature termination codons (PTCs) in HEK293T cells, boosts ribosome densities at normal stop codons, and does not affect ribosome densities in 3'-UTRs [1]. The compound also restores CFTR function in primary bronchial epithelial cells with G418 treatment over 72 h [1]. Western Blot Analysis shows a significant increase in both mature (Band C) and immature (Band B) CFTR protein forms at 10 μ M for 24 h in CFTR-G542X 16HBEge cells with G418 (100 μ M) [1].

Solubility Information

Solubility	DMSO: 5 mg/mL (12.97 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5943 mL	12.9715 mL	25.943 mL
5 mM	0.5189 mL	2.5943 mL	5.1886 mL
10 mM	0.2594 mL	1.2972 mL	2.5943 mL
50 mM	0.0519 mL	0.2594 mL	0.5189 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sharma J, et al. A small molecule that induces translational readthrough of CFTR nonsense mutations by eRF1 depletion. Nat Commun. 2021 Jul 16;12(1):4358.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481