

STL001

Chemical Properties

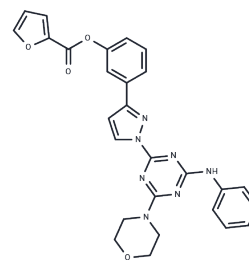
CAS No. : 3047493-70-6

Formula: C₂₇H₂₃N₇O₄

Molecular Weight: 509.52

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	STL001 is a potent and highly selective inhibitor of FOXM1. It induces the translocation of FOXM1 from the nucleus to the cytoplasm and promotes its degradation via the autophagic pathway. Additionally, STL001 enhances the sensitivity of human cancers to various cancer therapies.
Targets(IC50)	Autophagy
In vitro	<p>Method: Human ovarian cancer (OVCAR-8, ES-2), colorectal cancer (HCT-116, HCT-FET), esophageal cancer (FLO-1), breast cancer (TAM-R, HCC-1143), and prostate cancer (22Rv1, LNCaP) cells were treated with STL001 (1, 5, 10 μM) for 24 h. FOXM1 protein expression levels were detected by Western Blot.</p> <p>Result: STL001 dose-dependently reduced FOXM1 protein levels in the above cells, with significant effects observed at 1 μM, and was 25-50 times more efficient than its parental compound STL427944 [1].</p> <p>Method: Human esophageal cancer FLO-1 cells and U2OS C3-luc cells expressing EGFP-FOXM1 fusion protein were treated with STL001 (5 or 10 μM) in combination with chloroquine or leptomycin B for 24 h. FOXM1 and LC3 expression were detected by Western Blot.</p> <p>Result: STL001 induced the translocation of nuclear FOXM1 to the cytoplasm and promoted its autophagic degradation. Chloroquine (an inhibitor of autophagosome-lysosome fusion) reversed this effect, and leptomycin B (a nuclear export inhibitor) also blocked STL001-induced FOXM1 suppression [1].</p>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9626 mL	9.8132 mL	19.6263 mL
5 mM	0.3925 mL	1.9626 mL	3.9253 mL
10 mM	0.1963 mL	0.9813 mL	1.9626 mL
50 mM	0.0393 mL	0.1963 mL	0.3925 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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