LOM612

Cat. No.: HY-101035

CAS No.: 2173232-79-4

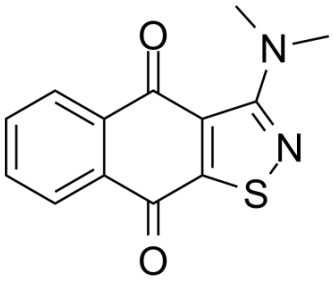
Molecular Formula: $C_{13}H_{10}N_2O_2S$

Molecular Weight: 258.3

Target: Others

Pathway: Others

Storage: 4°C, stored under nitrogen
* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 6 mg/mL (23.23 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.8715 mL	19.3573 mL	38.7147 mL
	5 mM	0.7743 mL	3.8715 mL	7.7429 mL
	10 mM	0.3871 mL	1.9357 mL	3.8715 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

LOM612 is a potent FOXO relocator, with an EC_{50} value of 1.5 μM in U2fox RELOC cells[1].

IC_{50} & Target

EC50: 1.5 μM (FOXO, in U2fox RELOC cells)[1]

In Vitro

LOM612 potently activates nuclear translocation of FOXO with an EC_{50} value of 1.5 μM, and this effect is independent of CRM-1. LOM612 effectively induces translocation of endogenous FOXO3a and FOXO1, and increases the expression of the FOXO target genes p27 and FasL. LOM612 shows no effect on the nuclear export of endogenous NFKB2 transcription factor in U2OS cells. LOM612 is cytotoxic to HepG2 cells, with an IC_{50} value of 0.64 μM, and does not sensitize non-cancer THLE2 cells (IC_{50}, 2.76 μM)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay [1]

Cells are seeded at a concentration of 1×10^4 cells/well in 200 μL culture medium and incubated at 37°C in 5% CO_2. After 24 hours, when the monolayer formed, the medium is replaced with a final volume of 200 μL of new medium with tested

compounds (LOM612, etc.) or controls are added to the plates. Cells are treated with eight 2-fold serial dilutions of each compound spanning concentrations from 50 μM to 0.39 μM in 1% DMSO final. Controls are on the first and the last columns of the plates. On the first column, methyl methanesulfonate (MMS) acts as a positive control and DMSO as a negative control. When compounds (LOM612, etc.) and controls are added, plates are incubated at 37°C in 5% CO_2 incubator for 72 hours. After this time, MTT solution is prepared at 5 mg/mL in PBS 1X and then diluted at 0.5 mg/mL in MEM without phenol red. The sample solution in wells is flicked off and 100 μL of MTT dye is added to each well. The plates are gently shaken and incubated for 3 hours at 37°C in 5% CO_2 incubator. The supernatant is removed and 100 μL of DMSO 100% is added. The plates are gently shaken to solubilize the formed formazan. The absorbance is measured at a wavelength of 570 nm[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Cautain B, et al. Discovery of a Novel, Isothiazolonaphthoquinone-Based Small Molecule Activator of FOXO Nuclear-Cytoplasmic Shuttling. PLoS One. 2016 Dec 9;11(12):e0167491.

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