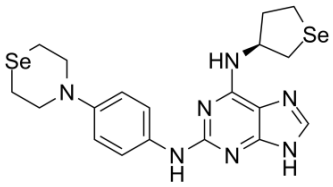
SLLN-15

Cat. No.:	HY-125465
CAS No.:	2403650-93-9
Molecular Formula:	$C_{19}H_{23}N_7Se_2$
Molecular Weight:	507.35
Target:	Autophagy
Pathway:	Autophagy
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description

SLLN-15 is an oral active, selective and potent enhancer of **autophagy** that activates cytostatic macroautophagy/autophagy in triple-negative breast cancer (TNBC)[1].

In Vitro

SLLN-15 (0, 1, 5, 10, 25 μM) treatment for 24 h markedly decreases overall cell viability of breast cancer cells in a dose-dependent manner[1].

SLLN-15 (100 nM and 1000 nM, 7 days) is able to equally inhibit the colony formation abilities of several breast cancer cell lines[1].

Overall, SLLN-15 induces a dose-dependent anti-proliferative activity in the TNBC cell lines MDA-MB-231 and BT-20 via induction of autophagy and autophagic flux. This induction is associated with a selective inhibition of AKT-MTOR signaling.

Cell Viability Assay[1]

Cell Line:	TNBC cell lines BT-20 and MDA-MB-231.
Concentration:	0, 1, 5, 10, 25 μM.
Incubation Time:	24 hours.
Result:	Inhibited the proliferation of two TNBC cell lines, BT-20 and MDA-MB-231.

Cell Viability Assay[1]

Cell Line:	TNBC cell lines (MDA-MB-231, BT-20, 4T1, MDA-MB-468), MCF-7 ($ERBB2^-$), SKBR-3 ($ERBB2^+$) and HEK293T.
Concentration:	100 nM and 1000 nM.
Incubation Time:	7 days.
Result:	Equally inhibited the colony formation abilities of several breast cancer cell lines.

In Vivo

SLLN-15 (30mg/kg, PO, 3 times a week) not only inhibits the growth of TNBC in animal model, but also TNBC cell progression to metastases[1].

Overall, oral SLLN-15 reveals a potent anticancer and anti-metastatic activity in mice bearing TNBC[1].

Animal Model:	BALB/c mice or SCID mice transplanted with mouse mammary carcinoma 4T1 cells and human breast adenocarcinoma MDA-MB-231 cells (1 X 10^6 cells/ each mouse)[1]
Dosage:	30mg/kg.
Administration:	PO, 3 times a week for 40 days.
Result:	Tumor allografts grew at a slower rate compared to control groups. Significant inhibition of the number of lung metastases as visualized.

REFERENCES

[1]. Chang CH, et al. A novel orally available seleno-purine molecule suppresses triple-negative breast cancer cell proliferation and progression to metastasis by inducing cytostatic autophagy. Autophagy. 2019 Mar 1:1-15.

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