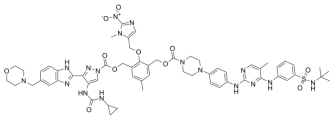
HAT-SIL-TG-1&AT

Cat. No.:	HY-149257
CAS No.:	2973282-50-5
Molecular Formula:	$C_{60}H_{69}N_{17}O_{11}S$
Molecular Weight:	1236.36
Target:	JAK; STAT
Pathway:	Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

HAT-SIL-TG-1&AT is a Janus tyrosine kinase (JAK) inhibitor with antitumor effects. HAT-SIL-TG-1&AT is the hypoxia-activated prodrug, witch inhibits JAK-STAT signaling in tumor tissue. And HAT-SIL-TG-1&AT inhibits HEL cells proliferation and downregulated phosphorylated STAT3/5 under hypoxic conditions[1].

IC_{50} & Target	STAT3	STAT5

In Vitro

HAT-SIL-TG-1&AT can be released as TG-1 and AT in the cell lysates under hypoxia condition[1].

HAT-SIL-TG-1&AT (1-5 μM; 24 h) inhibits the phorphoslation of STAT3/5 in HEL cells, and significantly inhibits at 3 μM[1].

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

Western Blot Analysis[1]

Cell Line:	HEL cells
Concentration:	3 μM, 5 μM
Incubation Time:	24 h
Result:	Competely inhibited STAT3 phorphoslation at 3 μM and significantly inhibited STAT5 phorphoslation at 5 μM.

In Vivo

HAT-SIL-TG-1&AT (80 mg/kg; ip; once daily for 14 days) exhibits significant tumor growth inhibition in HEL tumors xenograft male Balb/c-nude mice. HAT-SIL-TG-1&AT also induces cell apoptosis in mice[1].

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

Animal Model:	HEL tumors xenograft male Balb/c-nude mice[1]
Dosage:	40 mg/kg, 80 mg/kg
Administration:	Intraperitoneal injection; once daily for 14 days
Result:	Resulted regression on tumor growth with TGI values of 88.9% and 91.2%, respectively.

REFERENCES

[1]. Chen X, et al. A JAK tyrosine kinase and pseudokinase Co-inhibition strategy combines enhanced potency and on-demand activation. Eur J Med Chem. 2023 Mar 15;250:115198.

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