HAT-SIL-TG-1&AT

Cat. No.: HY-149257

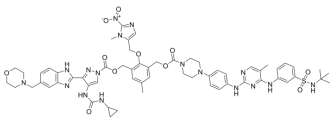
Molecular Formula: $C_{60}H_{69}N_{17}O_{11}S$

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.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA