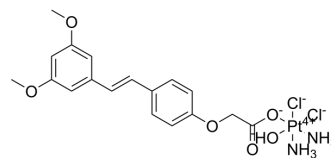


STAT3-IN-18

Cat. No.:	HY-155808
CAS No.:	2668267-41-0
Molecular Formula:	C ₁₈ H ₂₄ Cl ₂ N ₂ O ₆ Pt
Molecular Weight:	630.38
Target:	STAT; JAK; Apoptosis; COX
Pathway:	JAK/STAT Signaling; Stem Cell/Wnt; Epigenetics; Protein Tyrosine Kinase/RTK; Apoptosis; Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	STAT3-IN-18 (compound SPP) is a platinum (IV) complex with an axial ligand derived from sandalwood. STAT3-IN-18 inhibits the JAK2-STAT3 pathway in breast cancer (BC) cells, with anti-proliferative activity. STAT3-IN-18 activates caspase-3 and increases cleaved polyADP-ribose polymerase to induce apoptosis. STAT3-IN-18 promotes maturation and antigen presentation of dendritic cells and demonstrates safety in vivo.
In Vitro	STAT3-IN-18 (0.5 μM; 48 h) inhibits the phosphorylation of STAT3 and JAK2, decreases the protein levels of Bcl-2 and COX-2, and increases the protein levels of Bak, Caspase-3, Cleaved PARP1 in MDA-MB-231 cells ^[1] . STAT3-IN-18 (0.5 μM; 36 h) arrests the cell cycle of MDA-MB-231 cells at S phase, (0.5 μM; 48 h) and induces apoptosis ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	STAT3-IN-18 (refers to 1.5 mg Pt; every 2 days for 18 days) results inhibition of STAT3 phosphorylation, and inhibits tumor growth in 4T1 xenograft tumor mice model. The median lethal dose (LD50) of DPP is 10.45 mg/kg ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Cai L, Wang Y, Chen H, Tan Y, Yang T, Zhang S, Guo Z, Wang X. Platinum(IV) Complexes as Inhibitors of STAT3 and Regulators of the Tumor Microenvironment To Control Breast Cancer. *J Med Chem.* 2023 Aug 24;66(16):11351-11364.

Caution: Product has not been fully validated for medical applications. For research use only.

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