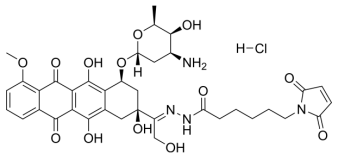
Aldoxorubicin hydrochloride

Cat. No.:	HY-16261C
CAS No.:	1361563-03-2
Molecular Formula:	$C_{37}H_{43}ClN_4O_{13}$
Molecular Weight:	787.21
Target:	Topoisomerase; ADC Cytotoxin
Pathway:	Cell Cycle/DNA Damage; Antibody-drug Conjugate/ADC Related
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Aldoxorubicin (INNO-206) hydrochloride is an albumin-binding proagent of Doxorubicin (DNA topoisomerase II inhibitor), which is released from albumin under acidic conditions. Aldoxorubicin hydrochloride (INNO-206) has potent antitumor activities in various cancer cell lines and in murine tumor models.
IC_{50} & Target	Topoisomerase II[4]
In Vitro	Aldoxorubicin hydrochloride (INNO-206)? (0.27 to 2.16 μM) inhibits blood vessel formation and reduces multiple myeloma cell growth in a pH-dependent fashion[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Aldoxorubicin hydrochloride (INNO-206) (10.8 mg/kg, i.v.) shows significantly smaller tumor volumes and IgG levels on days 28, and is well tolerated with 90% of mice surviving until the termination of the study in the mice bearing the LAGκ-1A tumor [1]. Aldoxorubicin hydrochloride (INNO-206) shows a good safety profile at doses up to 260 mg/mL doxorubicin equivalents, and is able to induce tumor regressions in breast cancer, small cell lung cancer and sarcoma in phase I study[2]. Aldoxorubicin hydrochloride (INNO-206) shows superior activity over doxorubicin in a murine renal cell carcinoma model and in breast carcinoma xenograft models[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Acta Pharm Sin B. 21 July 2022.
- Sci Adv. 2019 Aug 14;5(8):eaaw6081.
- Small. 2023 Feb 7;e2205606.
- Nano Res. 08 February 2022.
- Int J Nanomedicine. 20 September 2022.

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REFERENCES

[1]. Walker L, et al. Cell penetrating peptides fused to a thermally targeted biopolymer drug carrier improve the delivery and antitumor efficacy of an acid-sensitive doxorubicin derivative. Int J Pharm. 2012 Oct 15;436(1-2):825-32.

[2]. Graeser R, et al. INNO-206, the (6-maleimidocaproyl hydrazone derivative of doxorubicin), shows superior antitumor efficacy compared to doxorubicin in different tumor xenograft models and in an orthotopic pancreas carcinoma model. Invest New Drugs. 2010 F

[3]. Eric Sanchez, et al. Anti-Myeloma Effects of the Novel Anthracycline Derivative INNO-206. Clin Cancer Res.2012 18; 3856.

[4]. Kratz, F. INNO-206 (DOXO-EMCH), an Albumin-Binding Prodrug of Doxorubicin Under Development for Phase II Studies. Current Bioactive Compounds, 2011, 7(1): 33-38(6)

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