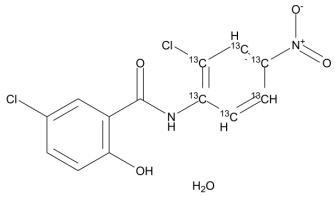
Niclosamide-$^{13}C_6$ monohydrate

Cat. No.:	HY-B0497BS
CAS No.:	1325559-12-3
Molecular Formula:	$C_7{}^{13}C_6H_{10}Cl_2N_2O_5$
Molecular Weight:	351.09
Target:	STAT; Parasite; Antibiotic
Pathway:	JAK/STAT Signaling; Stem Cell/Wnt; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Niclosamide-$^{13}C_6$ (monohydrate) is the ^{13}C labeled Niclosamide monohydrate[1]. Niclosamide (BAY2353) monohydrate is an orally active antihelminthic agent used in parasitic infection research[2]. Niclosamide monohydrate is a STAT3 inhibitor with an IC50 of 0.25 μM in HeLa cells[5]. Niclosamide monohydrate has biological activities against cancer, and inhibits DNA replication in Vero E6 cells[3][4][6].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. P Andrews, et al. The biology and toxicology of molluscicides, Bayluscide. Pharmacol Ther. 1982;19(2):245-95.

[3]. Wei Chen, et al. Niclosamide: Beyond an antihelminthic drug. Cell Signal. 2018 Jan41:89-96.

[4]. Kei Satoh, et al. Identification of Niclosamide as a Novel Anticancer Agent for Adrenocortical Carcinoma. Clin Cancer Res. 2016 Jul 1522(14):3458-66.

[5]. Xiaomei Ren, et al. Identification of Niclosamide as a New Small-Molecule Inhibitor of the STAT3 Signaling Pathway. ACS Med Chem Lett. 2010 Sep 71(9):454-9.

[6]. Chang-Jer Wu, et al. Inhibition of severe acute respiratory syndrome coronavirus replication by niclosamide. Antimicrob Agents Chemother. 2004 Jul48(7):2693-6.

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