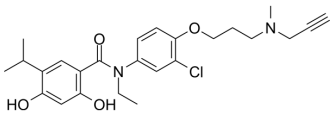
MAO A/HSP90-IN-2

Cat. No.:	HY-155580
CAS No.:	2927489-99-2
Molecular Formula:	$C_{25}H_{31}ClN_2O_4$
Molecular Weight:	458.98
Target:	Monoamine Oxidase; HSP
Pathway:	Neuronal Signaling; Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

MAO A/HSP90-IN-2 (compound 4-C) is a dual inhibitor of HSP90and MAO A with the IC_{50} values of 0.016 and 4.58 μM, respectively. MAO A/HSP90-IN-2 increases HSP70 expression and reduces HER2 and phospho-Akt expression, and decreases IFN-γ induced PD-L1 expression in GL26 cells. MAO A/HSP90-IN-2 inhibits the growth of Temozolomide (HY-17364) -sensitive and -resistant GBM cells, colon cancer, leukemia, non-small cell lung and other cancers, and has potential to inhibit tumor immune escape[1].

IC_{50} & Target

MAO-A	HSP90
4.58 μM (IC_{50})	0.016 μM (IC_{50})

In Vitro

MAO A/HSP90-IN-2 (compound 4-C) inhibits the growth of mouse and human GBM, colon cancer, leukemia, non-small cell lung and other cancers (GL26, U251S, U251R, U87MG, U373MG and LN229 cells with the IC_{50} values of 0.49, 1.09 0.26, 0.36, 0.89 and 0.31 μM) [1].

MAO A/HSP90-IN-2 (0.3 - 3 μM, 24h) increases the expression of HSP70 and decreases HER2 and phospho-Akt expression in GL26 and U251R cell lines [1].

MAO A/HSP90-IN-2(0.5 - 1 μM, 24 h) inhibits IFN-γ induced PD-L1 expression concentration-dependently in GL26 cells [1].

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

Western Blot Analysis [1]

Cell Line:	GL26, U251R cells
Concentration:	0.1, 0.3, 1, 3 μM
Incubation Time:	24 h
Result:	Decreased HER2 and phospho-Akt expression and increased the expression of HSP70 in a dose-dependent manner.

In Vivo

MAO A/HSP90-IN-2(compound 4-C) (25 mg/kg for i.p., eight days) reduces tumor growth in GL26 orthotopic xenograft tumor models[1].

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

Animal Model:	GL26 orthotopic xenograft tumor models[1]

Dosage:	25mg/kg
Administration:	Intraperitoneal injection (i.p.)
Result:	Reduced tumor growth inhibition (TGI%) by 59.8% compared to the control group.

REFERENCES

[1]. 1Hui-Ju Tseng, et al. Design, synthesis, and biological activity of dual monoamine oxidase A and heat shock protein 90 inhibitors, N-Methylpropargylamine-conjugated 4-isopropylresorcinol for glioblastoma. European Journal of Medicinal Chemistry. Volume 256, 5 August 2023, 115459.

[2]. Hui-Ju Tseng, et al. Design, synthesis, and biological activity of dual monoamine oxidase A and heat shock protein 90 inhibitors, N-Methylpropargylamine-conjugated 4-isopropylresorcinol for glioblastoma. European Journal of Medicinal Chemistry. Volume 256, 5 August 2023, 115459.

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