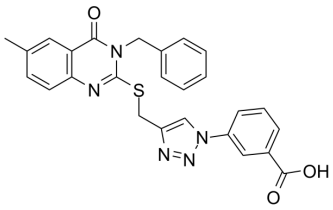
HSP90-IN-13

Cat. No.:	HY-146228
CAS No.:	2446055-29-2
Molecular Formula:	$C_{26}H_{21}N_5O_3S$
Molecular Weight:	483.54
Target:	HSP; Apoptosis; Topoisomerase; EGFR; VEGFR
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Apoptosis; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	HSP90-IN-13 (compound 5k) is a highly potent HSP90 pan inhibitor with an IC_{50} value of 25.07 nM. HSP90-IN-13 has multi-target activity against EGFR, VEGFR-2 and Topoisomerase-2. HSP90-IN-13 causes cell cycle arrest at G2/M phase and induces apoptosis of MCF-7 cells through mitochondrial-mediated pathway[1].			
IC_{50} & Target	HSP90 25.07 nM (IC_{50})	Topoisomerase-2 25.85 nM (IC_{50})	EGFR 38.5 nM (IC_{50})	VEGFR-2 126.95 nM (IC_{50})
In Vitro	HSP90-IN-13 (compound 5k) arrests the cell cycle on MCF-7 at a G2/M phase by 35.06% and induced apoptosis by 19.82%[1]. HSP90-IN-13 has anti-proliferative activity against HCT-116, Hela and MCF-7 cell lines with IC_{50}s of 4.47 μM, 7.55 μM and 4.04 μM, respectively[1]. HSP90-IN-13 has potent multi-target inhibitory activities against EGFR, VEGFR-2 and Topoisomerase-2 with IC_{50} values of 38.5 nM, 126.95 nM and 25.85 nM, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.			

REFERENCES

[1]. El-Shafey HW, et al. Synthetic approaches, anticancer potential, HSP90 inhibition, multitarget evaluation, molecular modeling and apoptosis mechanistic study of thioquinazolinone skeleton: Promising antibreast cancer agent. Bioorg Chem. 2020 Aug;101:103987.

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