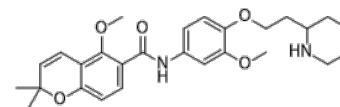


Product Name : NCT-58
Cat. No. : PC-22213
CAS No. : 2411429-33-7
Molecular Formula : C₂₇H₃₄N₂O₅
Molecular Weight : 466.58
Target : Heat Shock Protein (HSP)
Solubility : 10 mM in DMSO



CAS: 2411429-33-7

Biological Activity

NCT-58 is a specific small molecule C-terminal HSP90 inhibitor, kills trastuzumab-resistant HER2-positive breast cancer stem-like cells, targets the C-terminal HSP90 without inducing heat shock response (HSR).

NCT-58 exhibits significant inhibition of cell proliferation in HER2-positive breast cancer cells, with an IC₅₀ = 8.53 and 4.45 μM in BT474 and JIMT1, respectively, with minimal cytotoxicity in normal HEK293 cells.

NCT-58 targets the C-terminal domain of HSP90 and downregulates HER2, HER3, and EGFR expression.

NCT-58 induces apoptosis and inhibits tyrosine kinase activity of HER2 in trastuzumab-resistant cells.

NCT-58 eradicates HER2-positive BCSCs without triggering the HSR.

NCT-58 (30 mg/kg) inhibits tumor growth in trastuzumab-resistant JIMT-1 xenografts, suppresses BCSC-like properties and downregulates the expression of HSF-1, HSP70, and HSP90 in vivo.

References

Soeun Park, et al. Cell Death Discov. 2021 Nov 13;7(1):354.

Nguyen CT, et al. Bioorg Med Chem Lett. 2020;30:127374.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

E-mail: tech@probechem.com