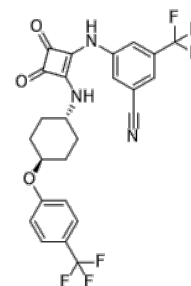


Product Name : HR-19011
Cat. No. : PC-24545
CAS No. : 2851820-52-3
Molecular Formula : C₂₅H₁₉F₆N₃O₃
Molecular Weight : 523.44
Target : Eukaryotic Initiation Factor (eIF)
Solubility : 10 mM in DMSO



CAS: 2851820-52-3

Biological Activity

HR-19011 is a specific small molecule eIF2 α phosphorylation inducer, increases the expression level of eIF2 α downstream proteins, ATF and CHOP, shows antiproliferation in K562 cells with IC₅₀ of 4.0 μ M. HR-19011 exerts anticancer effects primarily through the activation of heme-regulated inhibitor (HRI), leading to the phosphorylation of eukaryotic translation initiation factor 2 (eIF2) α . HR-19011 exhibits remarkably high selectivity index over PBMC cells. HR-19011 increases the expression level of eIF2 α downstream proteins, ATF and CHOP. HR-19011 suppresses the mTORC1 pathway, a critical regulator of cell growth and metabolism, through the downregulation of components such as phosphorylated (p)-S6K and p-4EBP1, mediated by ATF4 and CHOP. HR-19011 effectively inhibits tumor growth in a K562 xenograft model, without significant toxicity.

References

Jinsook Kwak, et al. Eur J Med Chem. 2022 May 29;239:114501.
 Kim MJ, et al. Mol Cancer Ther. 2025 Apr 28. doi: 10.1158/1535-7163.MCT-24-0998.

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

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