

PRODUCT INFORMATION

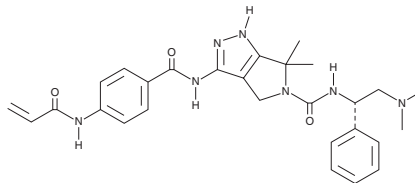


YKL-5-124

Item No. 31057

CAS Registry No.: 1957203-01-8
Formal Name: N-[(1S)-2-(dimethylamino)-1-phenylethyl]-4,6-dihydro-6,6-dimethyl-3-[[4-[(1-oxo-2-propen-1-yl)amino]benzoyl]amino]-pyrrolo[3,4-c]pyrazole-5(1H)-carboxamide

MF: C₂₈H₃₃N₇O₃
FW: 515.6
Purity: ≥90%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

YKL-5-124 is supplied as a solid. A stock solution may be made by dissolving the YKL-5-124 in the solvent of choice, which should be purged with an inert gas. YKL-5-124 is slightly soluble (0.1-1 mg/ml) in ethanol and sparingly soluble (1-10 mg/ml) in DMSO.

Description

YKL-5-124 is an inhibitor of cyclin-dependent kinase 7 (Cdk7; IC₅₀ = 9.7 nM).¹ It is selective for Cdk7 over Cdk2 and Cdk9 (IC₅₀s = 1,300 and 3,020 nM, respectively). YKL-5-124 (60 nM) induces cell cycle arrest at G₁ and G₂ phases in HAP1 chronic myeloid leukemia (CML) cells. It also inhibits HIV-1 provirus expression in HIV-1 infected J-Lat 10.6 T cell acute lymphoblastic leukemia cells when used at a concentration of 100 nM.² *In vivo*, YKL-5-124 (2.5 mg/kg per day), in combination with (+)-JQ1 (Item No. 11187), decreases tumor volume and increases survival in a patient-derived xenograft (PDX) mouse model of neuroblastoma.³

References

1. Olson, C.M., Liang, Y., Leggett, A., *et al.* Development of a selective CDK7 covalent inhibitor reveals predominant cell-cycle phenotype. *Cell Chem. Biol.* **26(6)**, 792-803.e10 (2019).
2. Horvath, R.M., Brumme, Z.L., and Sadowski, I. Small molecule inhibitors of transcriptional cyclin-dependent kinases impose HIV-1 latency, presenting “block and lock” treatment strategies. *Antimicrob. Agents Chemother.* **68(3)**, e0107223 (2024).
3. Gao, Y., Volegova, M., Nasholm, N., *et al.* Synergistic anti-tumor effect of combining selective CDK7 and BRD4 inhibition in neuroblastoma. *Front. Oncol.* **11**, 773186 (2022).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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