



Catalog # 10-4845

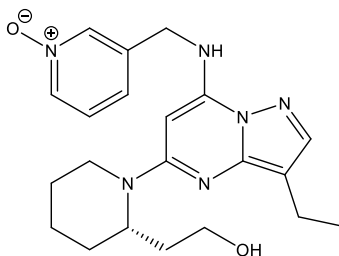
Dinaciclib

CAS# 779353-01-4

2-[(2S)-1-[3-Ethyl-7-[(1-oxidopyridin-1-ium-3-yl)methylamino]pyrazolo[1,5-a]pyrimidin-5-yl]piperidin-2-yl]ethanol;

SCH 727965

Lot # FBS4067



Dinaciclib is a potent and selective inhibitor of cyclin-dependent kinases CDK1, CDK2, CDK5, and CDK9 (IC₅₀s respectively: 3 nM, 1 nM, 1 nM, and 4 nM).^{1,2} Active across multiple human cancer cell lines and in mouse xenograft models.³⁻⁹

- 1) Paruch *et al.* (2010), *Discovery of Dinaciclib (SCH 727965): A potent and Selective Inhibitor of Cyclin-Dependent Kinase*; ACS Med. Chem. Lett., **1** 204
- 2) Parry *et al.* (2010), *Dinaciclib (SCH 727965), a novel and potent cyclin-dependent kinase inhibitor*; Mol. Cancer Ther., **9** 2344
- 3) Saqub *et al.* (2020), *Dinaciclib, a cyclin-dependent kinase inhibitor, suppresses cholangiocarcinoma growth by target CDK2/5/9*; Sci. Rep., **10** 18489
- 4) Howard *et al.* (2021), *Dinaciclib, a Bimodal Agent Effective against Endometrial Cancer*; Cancers (Basel), **13** 1135
- 5) Buzzetti *et al.* (2021), *Pre-therapeutic efficacy of the CDK inhibitor dinaciclib in medulloblastoma cells*; Sci. Rep., **11** 5374
- 6) Nelson *et al.* (2022), *Synthetic lethality of cyclin-dependent kinase inhibitor Dinaciclib with VHL-deficiency allows for selective targeting of clear cell renal carcinoma*; Cell Cycle, **21** 1103
- 7) Howard *et al.* (2022), *Dinaciclib as an effective pan-cyclin dependent kinase inhibitor in platinum-resistant ovarian cancer*; Front. Oncol., **12** 1014280
- 8) Schott *et al.* (2024), *Osteosarcoma PDX-Derived Cell Line Models for Preclinical Drug Evaluation Demonstrate Metathesis Inhibition by Dinaciclib through a Genome-Targeted Approach*; Clin. Cancer Res., **30** 849
- 9) Valdez Capuccino *et al.* (2024), *CDK9 inhibition as an effective therapy for small cell lung cancer*; Cell Death Dis., **15** 345

PHYSICAL DATA

Molecular Weight:	396.50
Molecular Formula:	C ₂₁ H ₂₈ N ₆ O ₂
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	Off-white to pale orange solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 2 months.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.

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