

CDK5 inhibitor 20-223

Chemical Properties

CAS No. : 865317-30-2

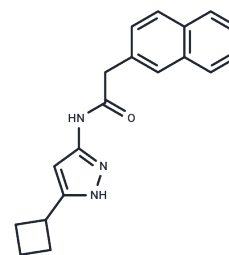
Formula: C₁₉H₁₉N₃O

Molecular Weight: 305.37

Storage: Keep away from direct sunlight, Store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	CDK5 inhibitor 20-223 (CP668863) is a potent CDK2/CDK5 inhibitor with IC ₅₀ values of 6.0 nM and 8.8 nM, respectively, with anti-Colorectal Cancer (CRC) potential, inhibiting cell migration and inducing cell cycle arrest in multiple CRC cell lines.
Targets(IC ₅₀)	CDK
In vitro	CDK5 inhibitor 20-223 inhibits CDK2/CDK5 (IC ₅₀ ≈ 362 nM), causes cell cycle arrest, reduces RB and FAK phosphorylation, and blocks CRC cell migration. CRC cell lines SW620, DLD1, HT29, HCT116, FET, CBS, and GEO cells[1].
In vivo	In mice, CDK5 inhibitor 20-223 (8 mg/kg, 3 weeks) significantly reduced tumor growth without toxicity and lowered pFAK levels in tumors[1].

Solubility Information

Solubility	DMSO: 80 mg/mL (261.98 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 5 mg/mL (16.37 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2747 mL	16.3736 mL	32.7472 mL
5 mM	0.6549 mL	3.2747 mL	6.5494 mL
10 mM	0.3275 mL	1.6374 mL	3.2747 mL
50 mM	0.0655 mL	0.3275 mL	0.6549 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Caroline M Robb, et al. Characterization of CDK(5) Inhibitor, 20-223 (Aka CP668863) for Colorectal Cancer Therapy. *Oncotarget*. 2017 Dec 28;9(4):5216-5232.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481