

IOR-160

Chemical Properties

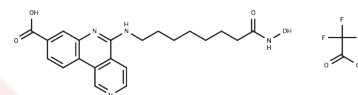
CAS No. : 2421119-78-8

Formula: C₂₃H₂₅F₃N₄O₆

Molecular Weight: 510.46

Storage: 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	IOR-160 is a dual inhibitor of casein kinase 2 (CK2) and HDAC. It exhibits high selectivity for CK2 with an IC ₅₀ of 1.7 nM and demonstrates broad inhibitory activity against HDAC (HDAC1, 2, 3, and 6) with IC ₅₀ values of 3.3 nM, 24.0 nM, 3.9 nM, and 13.0 nM, respectively, while showing low activity against HDAC8. IOR-160 modulates critical cell signaling pathways by inhibiting AKT phosphorylation and increasing α -tubulin acetylation. The compound reduces tumor growth and burden through its dual inhibition of CK2/HDAC and is relevant for research on triple-negative breast cancer.
Targets(IC ₅₀)	Casein Kinase,HDAC
In vitro	IOR-160 (0.5 μ M) exhibits strong inhibitory effects on CK2 and HIPK2, with residual activities of -6% and 7%, respectively. It shows moderate to low inhibition on DYRK1A, CLK2, Pim-1, Mnk2, DRAK1, and TrkA, with residual activity ranging from 18% to 65%. IOR-160 has weak inhibition on HDAC8, with an IC ₅₀ of 2200 nM.
In vivo	IOR-160 (1.0 mg dissolved in 100 μ L PBS, administered intratumorally three times a week for 26 days) inhibits tumor growth in NOD scid γ mice bearing MDA-MB-231 cells through dual CK2/HDAC inhibition.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.959 mL	9.7951 mL	19.5902 mL
5 mM	0.3918 mL	1.959 mL	3.918 mL
10 mM	0.1959 mL	0.9795 mL	1.959 mL
50 mM	0.0392 mL	0.1959 mL	0.3918 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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