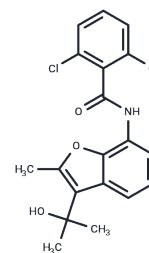


FR-167356

Chemical Properties

CAS No. : 174185-16-1
 Formula: C₁₉H₁₇Cl₂N₃O
 Molecular Weight: 378.25
 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	FR-167356 is a specific inhibitor of a3 isoform vacuolar type H ⁺ -ATPase with IC ₅₀ s of 170 nM, 370 nM and 220 nM for osteoclast plasma membranes, renal brush border membranes and macrophage microsomes. FR-167356 reduces bone metastasis of B16-F10 cells.
Targets(IC ₅₀)	ATPase, Proton pump
In vivo	In male C57BL/6 mice with B16-F10 xenografts, FR-167356 (200 mg/kg) reduces bone metastasis, inhibits tumor growth, and reduces the expression of MMP9[1].

Solubility Information

Solubility	DMSO: 22.5 mg/mL (59.48 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6438 mL	13.2188 mL	26.4375 mL
5 mM	0.5288 mL	2.6438 mL	5.2875 mL
10 mM	0.2644 mL	1.3219 mL	2.6438 mL
50 mM	0.0529 mL	0.2644 mL	0.5288 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

Nishisho T, et al. The $\alpha 3$ isoform vacuolar type H^+ -ATPase promotes distant metastasis in the mouse B16 melanoma cells. *Mol Cancer Res.* 2011 Jul;9(7):845-55.

Morissette G, et al. Intracellular sequestration of amiodarone: role of vacuolar ATPase and macroautophagic transition of the resulting vacuolar cytopathology. *Br J Pharmacol.* 2009 Aug;157(8):1531-40.

Morissette G, Lodge R, Marceau F. Intense pseudotransport of a cationic drug mediated by vacuolar ATPase: procainamide-induced autophagic cell vacuolization. *Toxicol Appl Pharmacol.* 2008 May 1;228(3):364-77.

Niikura K, Takeshita N, Takano M. A vacuolar ATPase inhibitor, FR167356, prevents bone resorption in ovariectomized rats with high potency and specificity: potential for clinical application. *J Bone Miner Res.* 2005 Sep;20(9):1579-88. Epub 2005 May 31.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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