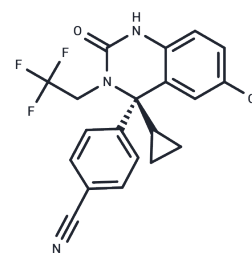


TTA-Q6

Chemical Properties

CAS No. :	910484-28-5
Formula:	C ₂₀ H ₁₅ ClF ₃ N ₃ O
Molecular Weight:	405.8
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	TTA-Q6, a selective T-type Ca ²⁺ channel antagonist, exhibits potential antitumor and immunomodulatory activities for treating neurological disorders by inhibiting the uptake of extracellular calcium ions by tumor cells, thereby inducing intracellular calcium deficiency and endoplasmic reticulum (ER) stress.
Targets(IC50)	Calcium Channel
In vitro	In the acidic tumor microenvironment, TTA-Q6 is released, disrupting cancer cell calcium uptake, inducing endoplasmic reticulum stress, and promoting the translocation of calcium-binding proteins to the cell surface[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (246.43 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (9.86 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	2.4643 mL	12.3213 mL	24.6427 mL
5 mM	0.4929 mL	2.4643 mL	4.9285 mL
10 mM	0.2464 mL	1.2321 mL	2.4643 mL
50 mM	0.0493 mL	0.2464 mL	0.4929 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

Guo Y, et al. Nanomedicine-based co-delivery of a calcium channel inhibitor and a small molecule targeting CD47 for lung cancer immunotherapy. Nat Commun. 2023 Nov 11;14(1):7306.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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