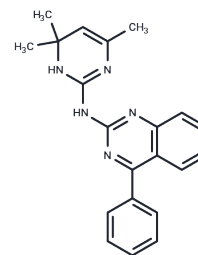


0990CL

Chemical Properties

CAS No. : 511514-03-7
 Formula: C₂₁H₂₁N₅
 Molecular Weight: 343.42
 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	0990CL is an effective heterotrimer Gαi subunit specific inhibitor, which can interact with purified G _o ± in GDP-bound state, and can block α ₂ AR mediated cAMP regulation. In the cell model, low concentration of 0990CL could partially restore cAMP level, and high concentration of 0990CL (10 μM) began to have negative effects on cell viability.
Targets(IC ₅₀)	cAMP,Others,Adrenergic Receptor
In vitro	0990CL (at a concentration of 30 μM with a 30-minute pre-treatment) exhibits preferential binding to Gα _{i1} compared to Gα _q . It displays selectivity towards Gα _i and Gα _q , resulting in a maximum reduction of endpoint fluorescence by 38±8% and 10%, respectively. Treatment with 0990CL (100 nM to 1 μM, 24 h) restores α ₂ AR/Gα _i -mediated cAMP levels induced by Fsk and UK14304 in HEK293 GloSensor cells. At a dosage of 100 nM, it reinstates 31% of the reduced cAMP levels[1].

Solubility Information

Solubility	DMSO: 45 mg/mL (131.03 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: 2 mg/mL (5.82 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	2.9119 mL	14.5594 mL	29.1189 mL
5 mM	0.5824 mL	2.9119 mL	5.8238 mL
10 mM	0.2912 mL	1.4559 mL	2.9119 mL
50 mM	0.0582 mL	0.2912 mL	0.5824 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

Appleton KM, et al. Development of inhibitors of heterotrimeric Gai subunits. *Bioorg Med Chem.* 2014 Jul 1;22(13): 3423-3434.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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