

Tafamidis

Chemical Properties

CAS No. : 594839-88-0

Formula: C₁₄H₇Cl₂NO₃

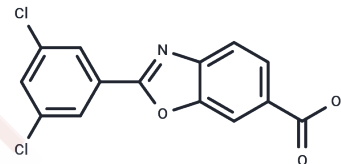
Molecular Weight: 308.12

Storage:

Keep away from direct sunlight, Keep away from moisture, 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	Tafamidis (Fx-1006A) is a kinetic stabilizer of transthyretin (TTR) that prevents amyloidogenesis by wild-type and mutant TTRs. It binds to TTR with negative cooperativity (Kd1: 3 nM; Kd2: 278 nM) to stabilize the TTR dimer-dimer interface and inhibit tetrameric dissociation. Tafamidis stabilizes wild-type and clinically significant V30M and V122I mutant TTR amyloidogenic homotetramers (EC50s: 2.7-3.2 μM) under fibril-promoting, denaturing, and physiological conditions in vitro. It stabilizes TTR heterotetramers containing wild-type and mutant subunits ex vivo in human plasma derived from patients carrying V30M or V122I mutations when used at a concentration of 7.2 μM. Formulations containing tafamidis have been used for the treatment of familial amyloid polyneuropathy.
Targets(IC50)	Others

Solubility Information

Solubility	Ethanol: 2 mg/mL (6.49 mM), Sonication is recommended. DMSO: 33.78 mg/mL (109.63 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1.5 mg/mL (4.87 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	3.2455 mL	16.2274 mL	32.4549 mL
5 mM	0.6491 mL	3.2455 mL	6.491 mL
10 mM	0.3245 mL	1.6227 mL	3.2455 mL
50 mM	0.0649 mL	0.3245 mL	0.6491 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

Bulawa, C.E., et al., Tafamidis, a potent and selective transthyretin kinetic stabilizer that inhibits the amyloid cascade. Proc Natl Acad Sci U S A, 2012. 109(24): p. 9629-34.

Scott L J. Tafamidis: A Review of Its Use in Familial Amyloid Polyneuropathy[J]. Drugs, 2014, 74(12):1371.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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