# Tafamidis meglumine

Cat. No.: HY-14852A CAS No.: 951395-08-7 Molecular Formula:  $C_{21}H_{24}Cl_2N_2O_8$ Molecular Weight: 503.33

Target: Transthyretin (TTR) Pathway: **Neuronal Signaling** 

4°C, sealed storage, away from moisture Storage:

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

**Product** Data Sheet

#### **SOLVENT & SOLUBILITY**

In Vitro DMSO: 12.5 mg/mL (24.83 mM; Need ultrasonic)

H<sub>2</sub>O: < 0.1 mg/mL (insoluble)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.9868 mL	9.9338 mL	19.8677 mL
	5 mM	0.3974 mL	1.9868 mL	3.9735 mL
	10 mM	0.1987 mL	0.9934 mL	1.9868 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.25 mg/mL (2.48 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.25 mg/mL (2.48 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.25 mg/mL (2.48 mM); Clear solution

### **BIOLOGICAL ACTIVITY**

Description Tafamidis meglumine (Fx-1006A) is a potent and selective transthyretin (TTR) stabilizer, shows comparable potency and efficacy to the mutumant homotetramers V30M-TTR, V122I-TTR and wild type WT-TTR, with EC $_{50}$ s of 2.7-3.2  $\mu$ M. Tafamidis

meglumine inhibits amyloidogenesis<sup>[1]</sup>.

EC50: 2.7-3.2  $\mu$ M (TTR)<sup>[1]</sup> IC<sub>50</sub> & Target

In Vitro Tafamidis binds selectively and with negative cooperativity ( $K_ds - 2 \text{ nM}$  and -200 nM) to the two normally unoccupied thyroxine-binding sites of the tetramer, and kinetically stabilizes TTR<sup>[1]</sup>.

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Tafamidis (0-7.2  $\mu$ M) dose-dependently inhibits WT-TTR amyloidogenesis after treatment for 72 hours at a pH of 4.4-4.5<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **CUSTOMER VALIDATION**

• J Med Chem. 2021 Sep 21.

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#### **REFERENCES**

[1]. Bulawa CE, et al. Tafamidis, a potent and selective transthyretin kinetic stabilizer that inhibits the amyloid cascade. Proc Natl Acad Sci U S A. 2012 Jun 12;109(24):9629-34.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

 $\hbox{E-mail: tech@MedChemExpress.com}$ 

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA