# **Product** Data Sheet

# **Azeliragon**

Cat. No.: HY-50682 CAS No.: 603148-36-3 Molecular Formula:  $C_{32}H_{38}CIN_3O_2$ 

Molecular Weight: 532.12 Target: Amyloid-β

Pathway: **Neuronal Signaling** 

Storage: Powder -20°C 3 years

 $4^{\circ}C$ 2 years

In solvent -80°C 2 years

> -20°C 1 year

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 50 mg/mL (93.96 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.8793 mL	9.3964 mL	18.7928 mL
	5 mM	0.3759 mL	1.8793 mL	3.7586 mL
	10 mM	0.1879 mL	0.9396 mL	1.8793 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: ≥ 2.5 mg/mL (4.70 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.70 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.70 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description	Azeliragon (TTP488) is an orally bioavailable inhibitor of the receptor for advanced glycation end products (RAGE) in
	development as a potential treatment to slow disease progression in patients with mild Alzheimer's disease (AD) $^{[1]}$ .
	Azeliragon also can cross the blood-brain barrier (BBB) <sup>[2]</sup> .
In Vitro	Azeliragon (4 nM; 16 hours; T cells) treatment inhibits of wild type mice (WT) but not the deletion of the receptor (RAGE-/-
	mice) T cells and significant reduction in the production of IFN- $\gamma^{[3]}$ .
	MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay <sup>[3]</sup>		
Cell Line:	Purified T cells from RAGE-/- or WT B6 mice.	
Concentration:	4 nM	
Incubation Time:	16 hours	
Result:	Inhibited of WT but not RAGE-/- T cells, and significantly reduced the level of IFN-γ.	

#### In Vivo

Azeliragon (100 mcg/d; intraperitoneal injection; every day) treatment reduces syngeneic islet graft and islet allograft in NOD and B6 mice (Islets were isolated from young prediabetic NOD/LtJ mice and transplanted into NOD mice with spontaneous diabetes; islets were isolated from WT BALB/c mice and transplanted into B6 mice with diabetes)<sup>[3]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Prediabetic NOD/LtJ (6-7 week old) mice, NOD mice with spontaneous diabetes, WT BALB/c mice (8-10 week old) and B6 mice with diabetes <sup>[3]</sup> .	
Dosage:	100 mcg/d	
Administration:	Intraperitoneal injection; every day	
Result:	Prolonged islet auto and allograft survival.	

## **CUSTOMER VALIDATION**

- Neuro Oncol. 2022 Nov 17;noac250.
- Biochim Biophys Acta Mol Basis Dis. 2021 Jun 22;1867(10):166186.
- NPJ Breast Cancer. 2023 Jul 13;9(1):59.
- J Nat Med. 2021 Feb 24.
- Clinics (Sao Paulo). 2021 Mar 8;76:e2348.

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#### **REFERENCES**

[1]. Burstein AH, et al. Assessment of Azeliragon QTc Liability Through Integrated, Model-Based Concentration QTc Analysis. Clin Pharmacol Drug Dev. 2019 May;8(4):426-435.

[2]. Bongarzone S, et al. Targeting the Receptor for Advanced Glycation Endproducts (RAGE): A Medicinal Chemistry Perspective. J Med Chem. 2017 Sep 14;60(17):7213-7232.

 $[3]. Chen \ Y, et \ al. \ RAGE \ ligation \ affects \ T \ cell \ activation \ and \ controls \ T \ cell \ differentiation. \ J \ Immunol. \ 2008 \ Sep \ 15;181(6):4272-8.$ 

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

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