

RTIOXA-43

Chemical Properties

CAS No. : 2832067-72-6

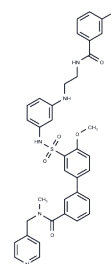
Formula: C37H37N5O5S

Molecular Weight: 663.79

Store at low temperature

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

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|---------------|---|
| Description | RTIOXA-43 is an OX2R/OX1R (orexin receptor) dual agonist that increases wakefulness and attenuates episodic sleep symptoms and is commonly used in studies related to narcolepsy and neural signaling. |
| Targets(IC50) | OX Receptor |
| In vivo | <p>Methods: Orexin modulation was induced in middle-aged (12 months) mice by peripheral injection of the small molecule orexin receptor agonist RTIOXA-133. Sleep-wake variables were measured by telemetry (after RTIOXA-43).</p> <p>Results: RTIOXA-43 improved wake time, reduced sleep duration (NREM and REM), and sleep/wake fragmentation. In addition, RTIOXA-43 improved sleep/wake quality by both reducing bout number and increasing bout duration. [1]</p> |

Solubility Information

| | |
|---------------------|--|
| Solubility | DMSO: 80 mg/mL (120.52 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | <p>10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (4.97 mM), Sonication is recommended.</p> <p><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></p> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|-----------|-----------|
| 1 mM | 1.5065 mL | 7.5325 mL | 15.065 mL |
| 5 mM | 0.3013 mL | 1.5065 mL | 3.013 mL |
| 10 mM | 0.1507 mL | 0.7533 mL | 1.5065 mL |
| 50 mM | 0.0301 mL | 0.1507 mL | 0.3013 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

Kotz, Catherine, et al. Small Molecule Orexin Agonists Enhance Physical Activity, Cognition and Sleep Quality in Aged Mice. *Obesity*; Silver Spring Vol. 29, (Dec 2021): 163.

Yanan Zhang, et al. Arylsulfoxamides as orexin receptor agonists. WO2022187231A1.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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