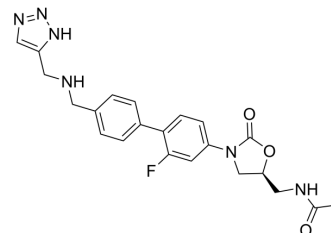


## Radezolid

<b>Cat. No.:</b>	HY-14800		
<b>CAS No.:</b>	869884-78-6		
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>23</sub> FN <sub>3</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	438.45		
<b>Target:</b>	Bacterial; Antibiotic		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 25 mg/mL (57.02 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.2808 mL	11.4038 mL	22.8076 mL
	5 mM	0.4562 mL	2.2808 mL	4.5615 mL
	10 mM	0.2281 mL	1.1404 mL	2.2808 mL

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

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 2.5 mg/mL (5.70 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 2.5 mg/mL (5.70 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: ≥ 2.5 mg/mL (5.70 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Radezolid (RX-1741) is a oxazolidinone antibiotic. Radezolid is active against *Staphylococcus*, *Chlamydia*, and *Legionella* species, and remains active against Linezolid-resistant strains<sup>[1][2]</sup>.

#### IC<sub>50</sub> & Target

Oxazolidinone

#### In Vitro

Radezolid MICs are systematically equal to or lower (up to 3 log<sub>2</sub> dilutions) than those of linezolid for all linezolid-

susceptible strains, with an 8-fold difference for the linezolid-resistant strains. Radezolid shows a greater potency than linezolid, independent of the bacteria tested, when concentrations are expressed on a weight (mg/L) basis. Radezolid shows an improved potency compared to that of linezolid when concentrations are expressed on a weight (mg/L) basis<sup>[1]</sup>. Radezolid and TR-700 perform well against 3-copy G2447T, G2576T, and G2576T/T2571C mutants<sup>[2]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## PROTOCOL

### Cell Assay <sup>[1]</sup>

Antibiotic accumulation is determined following the general procedure, and the cellular content of [<sup>14</sup>C]radezolid is assayed in cell lysates by liquid scintillation counting (lowest limit of detection, 0.003 mg/liter; linear response between 0.01 and 0.78 mg/liter; R<sup>2</sup>=0.999). All cell drug contents are expressed by reference to the total cell protein content and converted into apparent total cell concentrations using a conversion factor of 5 µL per mg of cell protein.

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

## CUSTOMER VALIDATION

- Br J Cancer. 2021 Mar 24.
- Front Microbiol. 2023 Apr 26;14:1131178.
- Front Microbiol. 2020 Feb 14;11:196.
- Antimicrob Agents Chemother. 2023 Mar 15:e0165522.
- Microb Pathog. 2020 Feb;139:103866.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Lemaire S, et al. Cellular pharmacodynamics of the novel biaryloxazolidinone radezolid: studies with infected phagocytic and nonphagocytic cells, using *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Listeria monocytogenes*, and *Legionella pneumophila*.

[2]. Locke JB, et al. Structure-activity relationships of diverse oxazolidinones for linezolid-resistant *Staphylococcus aureus* strains possessing the *cfr* methyltransferase gene or ribosomal mutations. *Antimicrob Agents Chemother.* 2010 Dec;54(12):5337-43.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

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