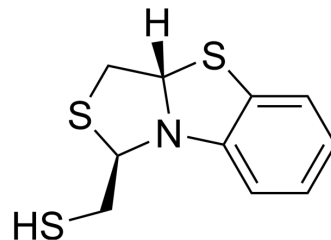


## Metallo-β-lactamase-IN-15

<b>Cat. No.:</b>	HY-161310
<b>CAS No.:</b>	1804934-57-3
<b>Molecular Formula:</b>	C <sub>10</sub> H <sub>11</sub> NS <sub>3</sub>
<b>Molecular Weight:</b>	241.4
<b>Target:</b>	Beta-lactamase
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Metallo-β-lactamase-IN-15 (Compound ±13) is a potent MBL inhibitor, the IC <sub>50</sub> values for NDM-1, IMP-1 and VIM-2 were 0.29 μM, 0.088 μM and 0.063 μM, respectively <sup>[1]</sup> .		
<b>IC<sub>50</sub> &amp; Target</b>	NDM-1 0.29 μM (IC <sub>50</sub> )	VIM-2 0.063 μM (IC <sub>50</sub> )	IMP-1 0.088 μM (IC <sub>50</sub> )
<b>In Vitro</b>	<p>Metallo-β-lactamase-IN-15 (Compound ±13) (50 ug/mL; 100 ug/mL) was not toxic to L929 cells<sup>[1]</sup>.</p> <p>Metallo-β-lactamase-IN-15 has good bioavailability and plasma stability<sup>[1]</sup>.</p> <p>Metallo-β-lactamase-IN-15 (100 μg/mL; 1h, 3h, 5h) growth activity of NDM-1-expressing E.coli DH5α strain, Metallo-β-lactamase-IN-15 restored imipenem activity in vitro<sup>[1]</sup>.</p> <p>Metallo-β-lactamase-IN-15 (100 μg/mL) decreased the minimum inhibitory concentration of meropenem in clinical E.coli DH5α strain<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>		
	Cell Line:		
	Concentration:		
	Incubation Time:		
	Result:		
	Cell Line:		
	Concentration:		
	Incubation Time:		
	Result:		
	Cell Viability Assay		
	Cell Line:	E.coli DH5α cells	
	Concentration:	100 ug/mL	

Incubation Time:	1h, 3h, 5h
Result:	Metallo- $\beta$ -lactamase-IN-15 restored imipenem activity <sup>[1]</sup> .

Cell Line:	
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Concentration:	
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Incubation Time:	
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Result:	
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Cell Line:	
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Concentration:	
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Incubation Time:	
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Result:	
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## REFERENCES

[1]. Villamil, Valentina et al. "Rational Design of Benzobisheterocycle Metallo- $\beta$ -Lactamase Inhibitors: A Tricyclic Scaffold Enhances Potency against Target Enzymes." Journal of medicinal chemistry, 19 Feb. 2024.

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

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