

## Balhimycin

Cat. No.:	HY-148209
CAS No.:	140932-79-2
Molecular Formula:	C <sub>66</sub> H <sub>73</sub> Cl <sub>2</sub> N <sub>9</sub> O <sub>24</sub>
Molecular Weight:	1447.24
Target:	Antibiotic; Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.

### BIOLOGICAL ACTIVITY

<b>Description</b>	Balhimycin is a glycopeptide antibiotic, found from the fermentation broth of a Amycolatopsis sp. Balhimycin shows anti-bacterial activity against staphylococci and anaerobes <sup>[1]</sup> .																	
<b>IC<sub>50</sub> &amp; Target</b>	Glycopeptide																	
<b>In Vitro</b>	<p>Balhimycin (0.39-12.5 µg/mL; 18 h) shows bactericidal activity against S. aureus, Streptococcus epidermidis, and streptococcal strains<sup>[1]</sup>.</p> <p>Balhimycin (0.39-12.5 µg/mL; 18 h) shows good bactericidal activity against different Staphylococcal strains<sup>[1]</sup>.</p> <p>Balhimycin (1-15 µg/mL; 30 min) leads to cell membrane scrambling of platelets, and shows stimulation of platelet apoptosis<sup>[2]</sup></p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Staphylococcus aureus 209P, S. aureus 3066, S. aureus 20424, S. epidermidis 178, S. epidermidis 825, S. epidermidis 823, S. haemolyticus 712, S. haemolyticus 809, Streptococcus ATCC 29212, S. faecalis D 21777, S. faecalis D Endococcen, S. faecium D-59, S. faecium D-65</td> </tr> <tr> <td>Concentration:</td> <td>0.39-12.5 µg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>18 hours</td> </tr> <tr> <td>Result:</td> <td>Showed MIC values ranging from 0.39 µg/mL to 12.5 µg/mL against S. aureus, Streptococcus epidermidis, and streptococcal strains.</td> </tr> </table> <p>Cell Viability Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>Staphylococcus aureus 3066, S. aureus 20424, S. epidermidis 825, S. haemolyticus 712, Streptococcus faecalis ATCC29212, S. faecalis D 21777, S. faecalis D-59</td> </tr> <tr> <td>Concentration:</td> <td>0.39-1.56 µg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>18 hours</td> </tr> <tr> <td>Result:</td> <td>Showed MIC values ranging from 0.39 µg/mL to 1.56 µg/mL against staphylococcal strains.</td> </tr> </table>		Cell Line:	Staphylococcus aureus 209P, S. aureus 3066, S. aureus 20424, S. epidermidis 178, S. epidermidis 825, S. epidermidis 823, S. haemolyticus 712, S. haemolyticus 809, Streptococcus ATCC 29212, S. faecalis D 21777, S. faecalis D Endococcen, S. faecium D-59, S. faecium D-65	Concentration:	0.39-12.5 µg/mL	Incubation Time:	18 hours	Result:	Showed MIC values ranging from 0.39 µg/mL to 12.5 µg/mL against S. aureus, Streptococcus epidermidis, and streptococcal strains.	Cell Line:	Staphylococcus aureus 3066, S. aureus 20424, S. epidermidis 825, S. haemolyticus 712, Streptococcus faecalis ATCC29212, S. faecalis D 21777, S. faecalis D-59	Concentration:	0.39-1.56 µg/mL	Incubation Time:	18 hours	Result:	Showed MIC values ranging from 0.39 µg/mL to 1.56 µg/mL against staphylococcal strains.
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## REFERENCES

[1]. Nadkarni SR, et al. Balhimycin, a new glycopeptide antibiotic produced by Amycolatopsis sp. Y-86,21022. Taxonomy, production, isolation and biological activity. J Antibiot (Tokyo). 1994 Mar;47(3):334-41.

[2]. Towhid ST, et al. Stimulation of platelet apoptosis by balhimycin. Biochem Biophys Res Commun. 2013 May 31;435(2):323-6.

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

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