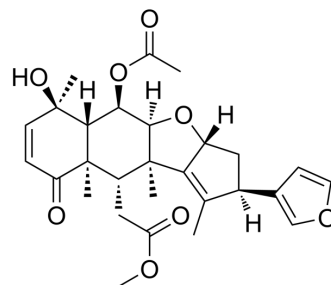


6-Acetylnimbandiol

Cat. No.:	HY-N10437
CAS No.:	1281766-66-2
Molecular Formula:	C ₂₈ H ₃₄ O ₈
Molecular Weight:	498.56
Target:	Tyrosinase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	6-Acetylnimbandiol (6-O-Acetylnimbandiol) is a non-cytotoxic tyrosinase inhibitor (IC ₅₀ =69.85 μM) that effectively inhibits melanin production and MITF expression. 6-Acetylnimbandiol can be used in melanoma research ^[1] .																	
IC₅₀ & Target	Tyrosinase 69.85 μM (IC ₅₀)																	
In Vitro	<p>6-Acetylnimbandiol (10, 30, 100 μM; 48 h) shows antimelanogenic activity in B16 melanoma cells^[1]. 6-Acetylnimbandiol (50, 100 μM; 48 h) exerts melanogenesis inhibition by inhibiting expression of MITF, tyrosinase, TRP-1, and TRP-2 in B16 melanoma cells^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Viability Assay^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>B16 melanoma cells</td> </tr> <tr> <td>Concentration:</td> <td>10, 30, 100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 h</td> </tr> <tr> <td>Result:</td> <td>Exhibited potent melanogenesis-inhibitory effect with 22.9% melanin content at 100 μM.</td> </tr> </table> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>B16 melanoma cells</td> </tr> <tr> <td>Concentration:</td> <td>50, 100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 h</td> </tr> <tr> <td>Result:</td> <td>Inhibited tyrosinase with an IC₅₀ value of 69.85 μM.</td> </tr> </table>		Cell Line:	B16 melanoma cells	Concentration:	10, 30, 100 μM	Incubation Time:	48 h	Result:	Exhibited potent melanogenesis-inhibitory effect with 22.9% melanin content at 100 μM.	Cell Line:	B16 melanoma cells	Concentration:	50, 100 μM	Incubation Time:	48 h	Result:	Inhibited tyrosinase with an IC ₅₀ value of 69.85 μM.
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REFERENCES

[1]. Su S, et al. Melanogenesis-inhibitory activities of limonoids and tricyclic diterpenoids from *Azadirachta indica*. *Bioorg Chem.* 2020 Jul;100:103941.

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

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