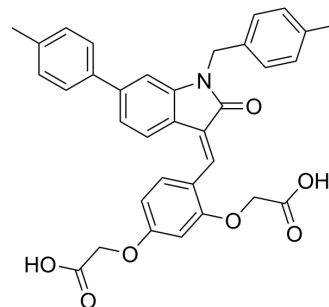


SAP2-IN-1

Cat. No.:	HY-151376
CAS No.:	2512847-37-7
Molecular Formula:	C ₃₄ H ₂₉ NO ₇
Molecular Weight:	563.6
Target:	Proteasome
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	SAP2-IN-1 is a secreted aspartic protease 2 (SAP2) inhibitor and has potent SAP2 inhibitory activity with an IC ₅₀ value of 0.92 μM. SAP2-IN-1 also is a virulence factor inhibitor and is inactive in vitro. SAP2-IN-1 can be used for the research of infection ^[1] .								
IC₅₀ & Target	IC ₅₀ : 0.92 μM (SAP2) ^[1]								
In Vitro	<p>SAP2-IN-1 (compound 24a) (100 μM) shows potent SAP2 inhibitory activity with an IC₅₀ value of 0.92 μM^[1].</p> <p>SAP2-IN-1 (100 μM) has not inhibit the growth of <i>C. albicans</i> and inactive in vitro^[1].</p> <p>SAP2-IN-1 (64 μg/mL) blocks fungi biofilm and hypha formation by down-regulating the expression of genes SAP2, ECE1, ALS3 and EFG1^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>RT-PCR^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td><i>C. albicans</i> cells</td> </tr> <tr> <td>Concentration:</td> <td>64 μg/mL</td> </tr> <tr> <td>Incubation Time:</td> <td></td> </tr> <tr> <td>Result:</td> <td>Inhibited hypha growth through the cAMP-dependent pathway.</td> </tr> </table>	Cell Line:	<i>C. albicans</i> cells	Concentration:	64 μg/mL	Incubation Time:		Result:	Inhibited hypha growth through the cAMP-dependent pathway.
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Concentration:	64 μg/mL								
Incubation Time:									
Result:	Inhibited hypha growth through the cAMP-dependent pathway.								
In Vivo	<p>SAP2-IN-1 (compound 24a) (i.p.; 10 mg/kg; once daily; for four days) shows potent in vivo efficacy in a murine model of invasive candidiasis^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>a murine model of invasive candidiasis^[1]</td> </tr> <tr> <td>Dosage:</td> <td>10 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>intraperitoneally administration, once daily, for four days</td> </tr> <tr> <td>Result:</td> <td>Significantly reduced the fungal burden in the kidney.</td> </tr> </table>	Animal Model:	a murine model of invasive candidiasis ^[1]	Dosage:	10 mg/kg	Administration:	intraperitoneally administration, once daily, for four days	Result:	Significantly reduced the fungal burden in the kidney.
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REFERENCES

[1]. Chenglan Li, et al. Targeting fungal virulence factor by small molecules: Structure-based discovery of novel secreted aspartic protease 2 (SAP2) inhibitors. Eur J Med Chem. 2020 Sep 1;201:112515.

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

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