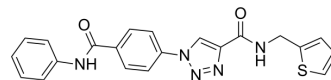


MKA031

Cat. No.:	HY-149308
Molecular Formula:	C ₂₁ H ₁₇ N ₅ O ₂ S
Molecular Weight:	403.46
Target:	Macrophage migration inhibitory factor (MIF)
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	MKA031 (compound 6y) is a non-competitive MIF inhibitor with an IC ₅₀ value of 1.7 μM. MKA031 (compound 6y) interferes with MIF/AIF interaction, MIF nuclear translocation, and N-methyl-N'-nitro-N-nitrosoguanidine (MNNG)-induced dependent cell death. MKA031 can be used in the study of chronic hepatitis C virus infection ^[1] .																
In Vitro	<p>MKA031 (compound 6y) (1-100 μl; 3 h) prevents MNNG-Induced Cell Death^[1]. MKA031 (compound 6y) (100 μl; 3 h) protects Genomic DNA by Blocking the Recruitment of MIF to AIF^[1].</p> <p>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>HeLa cells</td> </tr> <tr> <td>Concentration:</td> <td>1-100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>3 h</td> </tr> <tr> <td>Result:</td> <td>Protected HeLa cells from MNNG-induced parthanatos in a dose dependent manner with an EC₅₀ of 7.7 μM.</td> </tr> </table> <p>Immunofluorescence^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>HeLa cells</td> </tr> <tr> <td>Concentration:</td> <td>100 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>3 h</td> </tr> <tr> <td>Result:</td> <td>Interfered with the MIF/AIF interaction and blocks MIF nuclear translocation.</td> </tr> </table>	Cell Line:	HeLa cells	Concentration:	1-100 μM	Incubation Time:	3 h	Result:	Protected HeLa cells from MNNG-induced parthanatos in a dose dependent manner with an EC ₅₀ of 7.7 μM.	Cell Line:	HeLa cells	Concentration:	100 μM	Incubation Time:	3 h	Result:	Interfered with the MIF/AIF interaction and blocks MIF nuclear translocation.
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REFERENCES

[1]. Chen D, et al. Allosteric Inhibitors of Macrophage Migration Inhibitory Factor (MIF) Interfere with Apoptosis-Inducing Factor (AIF) Co-Localization to Prevent Parthanatos. *J Med Chem.* 2023 Jul 13;66(13):8767-8781.

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

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