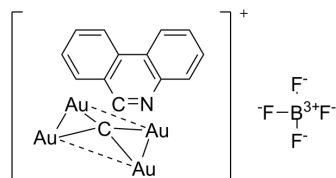


PAA4

Cat. No.:	HY-149035
Molecular Formula:	C ₁₄ H ₈ Au ₄ BF ₄ N
Molecular Weight:	1064.89
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	PAA4 is a methide carbon-centered polynuclear Au(I) clusters. PAA4 shows antiproliferative activity. PAA4 increases the expression of pH2AX in a time dependent manner. PAA4 shows anti-tumor effect in orthotopic bladder cancer mouse model [1].																
In Vitro	<p>PAA4 (0-4 μM; 24 h) shows no significant cytotoxicity in EJ, HUVEC, SV-HUC-1 cell lines with IC₅₀ values of 2.1, 0.80, 2.3 μM, respectively [1].</p> <p>PAA4 (4 μM; 1, 3, 6 h) causes significant DNA damage as indicated by the increase of histone H2AX phosphorylation (pH2AX) [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>HUVEC, EJ, SV-HUC-1 cells</td> </tr> <tr> <td>Concentration:</td> <td>0, 0.5, 1, 1.5, 2, 4 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Showed no significant cytotoxicity in EJ, HUVEC, SV-HUC-1 cell lines with IC₅₀ values of 2.1, 0.80, 2.3 μM, respectively.</td> </tr> </table> <p>Western Blot Analysis [1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>EJ cells</td> </tr> <tr> <td>Concentration:</td> <td>4 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>1, 3, 6 h</td> </tr> <tr> <td>Result:</td> <td>Increased the expression of pH2AX in a time dependent manner.</td> </tr> </table>	Cell Line:	HUVEC, EJ, SV-HUC-1 cells	Concentration:	0, 0.5, 1, 1.5, 2, 4 μM	Incubation Time:	24 h	Result:	Showed no significant cytotoxicity in EJ, HUVEC, SV-HUC-1 cell lines with IC ₅₀ values of 2.1, 0.80, 2.3 μM, respectively.	Cell Line:	EJ cells	Concentration:	4 μM	Incubation Time:	1, 3, 6 h	Result:	Increased the expression of pH2AX in a time dependent manner.
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In Vivo	<p>PAA4 (1.5 μM, 100 μL; intravesical delivered into the bladder; 5 times every other day for 8 days) shows anti-tumor activity in mouse [1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>																

Animal Model:	4-6 weeks, 18 g, female BALB/c nude mice ^[1]
Dosage:	1.5 μ M, 100 μ L
Administration:	Intravesical delivered into the bladder; 5 times every other day for 8 days
Result:	Exhibited a good anti-tumor effect with the small average tumor volume of 564 ± 180 mm ³ after 22 days and no significant body weight loss.

REFERENCES

[1]. Xiao K, et al. Pro-oxidant response and accelerated ferroptosis caused by synergetic Au(I) release in hypercarbon-centered gold(I) cluster prodrugs. Nat Commun. 2022 Aug 9;13(1):4669.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA