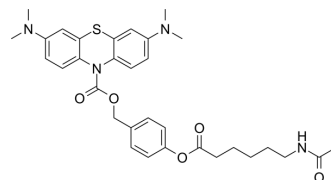


## HDAC-MB

<b>Cat. No.:</b>	HY-163290
<b>Molecular Formula:</b>	C <sub>32</sub> H <sub>38</sub> N <sub>4</sub> O <sub>5</sub> S
<b>Molecular Weight:</b>	590.73
<b>Target:</b>	Fluorescent Dye; Monoamine Oxidase
<b>Pathway:</b>	Others; Neuronal Signaling
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	HDAC-MB a probe that is activated by HDAC6 and can detect and eliminate glioma cells through activation by HDAC6. HDAC-MB reveals antimetastatic and antiproliferative properties, inhibits glioma invasion and induces cellular apoptosis <sup>[1]</sup> .																						
<b>In Vitro</b>	<p>HDAC-MB (10 μM) can be activated by HDAC6, produces near-infrared fluorescence and images HDAC6<sup>[1]</sup>.</p> <p>HDAC-MB (0-5 μM) is phototoxic and activated by HDAC6 in HeLa and U251 cells<sup>[1]</sup>.</p> <p>HDAC-MB (5 μM) inhibits the glioma cells migration, invasion and proliferation through the synergistic effect of MAO A inhibition and PDT, induces thereby glioma cells apoptosis<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cytotoxicity Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>HeLa</td> </tr> <tr> <td>Concentration:</td> <td>0-5 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Revealed a dose-dependent cytotoxicity.</td> </tr> </table> <p>Cell Migration Assay<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>U251 cells</td> </tr> <tr> <td>Concentration:</td> <td>1 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> <tr> <td>Result:</td> <td>Reduced the cell migration by 40% with no irradiation, reduced the cell migration by 70% with light irradiation.</td> </tr> </table> <p>Apoptosis Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>U251 cells</td> </tr> <tr> <td>Concentration:</td> <td>15 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 h</td> </tr> </table>	Cell Line:	HeLa	Concentration:	0-5 μM	Incubation Time:	24 h	Result:	Revealed a dose-dependent cytotoxicity.	Cell Line:	U251 cells	Concentration:	1 μM	Incubation Time:	24 h	Result:	Reduced the cell migration by 40% with no irradiation, reduced the cell migration by 70% with light irradiation.	Cell Line:	U251 cells	Concentration:	15 μM	Incubation Time:	24 h
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Incubation Time:	24 h																						

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Result:	Induced apoptosis upon NIR light irradiation.
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## REFERENCES

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[1]. Wei W, et al., HDAC6-Activatable Multifunctional Near-Infrared Probe for Glioma Cell Detection and Elimination. Anal Chem. 2024 Feb 13;96(6):2406-2414.

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

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