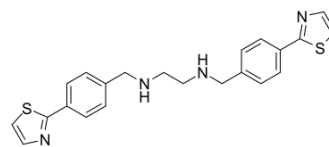


## BC-1258

<b>Cat. No.:</b>	HY-129087
<b>CAS No.:</b>	1507370-40-2
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>22</sub> N <sub>4</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	406.57
<b>Target:</b>	Apoptosis
<b>Pathway:</b>	Apoptosis
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	BC-1258, an F-box/LRR-repeat protein 2 (FBXL2) activator, can stabilize and upregulate FBXL2 levels. BC-1258 induces apoptosis of tumorigenic cells, and profoundly inhibits tumor formation in mice <sup>[1]</sup> .																
<b>IC<sub>50</sub> &amp; Target</b>	FBXL2 <sup>[1]</sup>																
<b>In Vitro</b>	<p>BC-1258 <math>\uparrow</math> F-box/LRR-repeat protein 2 (FBXL2) <math>\uparrow</math> FBXL2 <math>\uparrow</math> BC-1258 <math>\uparrow</math> MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Cell Cycle Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>MLE cells</td> </tr> <tr> <td>Concentration:</td> <td>2, 10, 50 <math>\mu</math>g/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>16 hours</td> </tr> <tr> <td>Result:</td> <td>Significantly increased the cell population within the G2/M phase. Reduced the diploid cell population and increase the numbers of polyploid cells in a dose-dependent manner.</td> </tr> </table> <p>Western Blot Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>U937, K562 and THP1 cells</td> </tr> <tr> <td>Concentration:</td> <td>2, 10 <math>\mu</math>g/mL</td> </tr> <tr> <td>Incubation Time:</td> <td>16 hours</td> </tr> <tr> <td>Result:</td> <td>Increased FBXL2 protein levels. Decreased FBXL2 substrates, including Aurora B, cyclin D2 and cyclin D3 levels.</td> </tr> </table>	Cell Line:	MLE cells	Concentration:	2, 10, 50 $\mu$ g/mL	Incubation Time:	16 hours	Result:	Significantly increased the cell population within the G2/M phase. Reduced the diploid cell population and increase the numbers of polyploid cells in a dose-dependent manner.	Cell Line:	U937, K562 and THP1 cells	Concentration:	2, 10 $\mu$ g/mL	Incubation Time:	16 hours	Result:	Increased FBXL2 protein levels. Decreased FBXL2 substrates, including Aurora B, cyclin D2 and cyclin D3 levels.
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<b>In Vivo</b>	BC-1258 (30 $\mu$ g/mL in the drinking water) significantly reduces tumor size and weight in athymic nude mice <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.																

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## REFERENCES

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[1]. Chen BB, et, al. Skp-cullin-F box E3 ligase component FBXL2 ubiquitinates Aurora B to inhibit tumorigenesis. Cell Death Dis. 2013 Aug 8;4(8):e759.

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

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