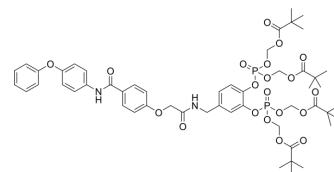


## Pomstafib-2

<b>Cat. No.:</b>	HY-112649
<b>CAS No.:</b>	2332841-83-3
<b>Molecular Formula:</b>	C <sub>52</sub> H <sub>66</sub> N <sub>2</sub> O <sub>20</sub> P <sub>2</sub>
<b>Molecular Weight:</b>	1101.03
<b>Target:</b>	Apoptosis; STAT
<b>Pathway:</b>	Apoptosis; JAK/STAT Signaling; Stem Cell/Wnt
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	Pomstafib-2 is a potent and selective STAT5b inhibitor. Pomstafib-2 decreases the expression of pSTAT5b and induces Apoptosis <sup>[1][2]</sup> .																
In Vitro	<p>Pomstafib-2 (compound 8) (0-10 μM; 4 h) decreases the expression of pSTAT5b in a dose-dependent manner in STAT5b-GFP-transfected K562 cells<sup>[1]</sup>.</p> <p>Pomstafib-2 (0, 10, 20, 40, 60, 80 μM; 48 h) induces apoptosis in a dose-dependent manner in STAT5-dependent K562 cells<sup>[1]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>K562 leukaemia cells</td> </tr> <tr> <td>Concentration:</td> <td>0, 0.3, 1, 3, 10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>4 h</td> </tr> <tr> <td>Result:</td> <td>Decreased the expression of pSTAT5b in a dose-dependent manner.</td> </tr> </table> <p>Apoptosis Analysis<sup>[1]</sup></p> <table border="1"> <tr> <td>Cell Line:</td> <td>K562, MDA-MB-231 cells</td> </tr> <tr> <td>Concentration:</td> <td>0, 10, 20, 40, 60, 80 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>48 h</td> </tr> <tr> <td>Result:</td> <td>Induced apoptosis in a dose-dependent manner in K562 cells, does not increased the apoptotic rate of STAT5-independent MDA-MB-231 cells.</td> </tr> </table>	Cell Line:	K562 leukaemia cells	Concentration:	0, 0.3, 1, 3, 10 μM	Incubation Time:	4 h	Result:	Decreased the expression of pSTAT5b in a dose-dependent manner.	Cell Line:	K562, MDA-MB-231 cells	Concentration:	0, 10, 20, 40, 60, 80 μM	Incubation Time:	48 h	Result:	Induced apoptosis in a dose-dependent manner in K562 cells, does not increased the apoptotic rate of STAT5-independent MDA-MB-231 cells.
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	Incubation Time:	4 h															
	Result:	Decreased the expression of pSTAT5b in a dose-dependent manner.															
	Cell Line:	K562, MDA-MB-231 cells															
	Concentration:	0, 10, 20, 40, 60, 80 μM															
	Incubation Time:	48 h															
	Result:	Induced apoptosis in a dose-dependent manner in K562 cells, does not increased the apoptotic rate of STAT5-independent MDA-MB-231 cells.															

### REFERENCES

- [1]. Elumalai N, et al. Rational development of Stafib-2: a selective, nanomolar inhibitor of the transcription factor STAT5b. *Sci Rep.* 2017 Apr 11;7(1):819.
- [2]. Gräß J, et al. The STAT5b Linker Domain Mediates the Selectivity of Catechol Bisphosphates for STAT5b over STAT5a. *ACS Chem Biol.* 2019 Apr 19;14(4):796-805.

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

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