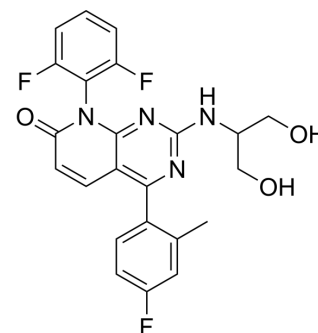


## Dilmapimod

|                           |  |       |         |
|---------------------------|--|-------|---------|
| <b>Cat. No.:</b>          | HY-10404   |       |         |
| <b>CAS No.:</b>           | 444606-18-2  |       |         |
| <b>Molecular Formula:</b> | C <sub>23</sub> H <sub>19</sub> F <sub>3</sub> N <sub>4</sub> O <sub>3</sub> |       |         |
| <b>Molecular Weight:</b>  | 456.42   |       |         |
| <b>Target:</b>            | p38 MAPK; Autophagy  |       |         |
| <b>Pathway:</b>           | MAPK/ERK Pathway; Autophagy  |       |         |
| <b>Storage:</b>           | Powder   | -20°C | 3 years |
|                           |  | 4°C   | 2 years |
|                           | In solvent   | -80°C | 2 years |
|                           |  | -20°C | 1 year  |



### SOLVENT & SOLUBILITY

|   |   |                          |              |            |            |
|---|---|--------------------------|--------------|------------|------------|
| <b>In Vitro</b>   | DMSO : 125 mg/mL (273.87 mM; Need ultrasonic)   |                          |              |            |            |
|   |   | Solvent<br>Concentration | Mass<br>1 mg | 5 mg       | 10 mg      |
|   | <b>Preparing Stock Solutions</b>  | 1 mM                     | 2.1910 mL    | 10.9548 mL | 21.9096 mL |
|   |   | 5 mM                     | 0.4382 mL    | 2.1910 mL  | 4.3819 mL  |
| 10 mM   |   | 0.2191 mL                | 1.0955 mL    | 2.1910 mL  |            |
| Please refer to the solubility information to select the appropriate solvent. |   |                          |              |            |            |
| <b>In Vivo</b>  | <ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline<br/>Solubility: ≥ 2.08 mg/mL (4.56 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline)<br/>Solubility: ≥ 2.08 mg/mL (4.56 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil<br/>Solubility: ≥ 2.08 mg/mL (4.56 mM); Clear solution</li> </ol> |                          |              |            |            |

### BIOLOGICAL ACTIVITY

|                    |   |
|--------------------|---|
| <b>Description</b> | Dilmapimod (SB-681323) is a potent p38 MAPK inhibitor that potentially suppresses inflammation in chronic obstructive pulmonary disease.  |
| <b>In Vitro</b>    | Dilmapimod (SB-681323) potently inhibits p38 MAPK signaling, measured by inhibition of sorbitol-induced pHSP27 expression <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

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## CUSTOMER VALIDATION

- Cell. 2020 Aug 6;182(3):685-712.e19.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

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## REFERENCES

[1]. Singh D, et al. A randomized, placebo-controlled study of the effects of the p38 MAPK inhibitor SB-681323 on blood biomarkers of inflammation in COPD patients. J Clin Pharmacol. 2010 Jan;50(1):94-100.

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

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