Pyridone 6

Potent and selective inhibitor of JAK1 (IC50=15 nM, murine JAK1), JAK2 (IC50=1 nM), JAK3 (Ki=5 nM), and Tyk2 (IC50=1 nM); displaying significantly weaker affinities (130 nM to 10 mM) for other protein tyrosine kinases.

Product Description

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Pyridone 6 (CMP 6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS No.</td>
<td>457081-03-7</td>
</tr>
<tr>
<td>Cat. No.</td>
<td>LSF453</td>
</tr>
<tr>
<td>MWt</td>
<td>309.34</td>
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<tr>
<td>Formula</td>
<td>C18H16FN3O</td>
</tr>
<tr>
<td>Purity</td>
<td>&gt;98%</td>
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<tr>
<td>Solubility</td>
<td>DMSO 5 mg/ml</td>
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</tbody>
</table>

Technical and Scientific Information

Pyridone 6 (CMP 6) is a potent and selective inhibitor of JAK1 (IC50=15 nM, murine JAK1), JAK2 (IC50=1 nM), JAK3 (Ki=5 nM), and Tyk2 (IC50=1 nM); displaying significantly weaker affinities (130 nM to 10 mM) for other protein tyrosine kinases.

IC50 value: 15/1/5/1 nM (JAK1/JAK2/JAK3/Tyk2)

Target: pan JAK

Pyridone 6, a pan-JAK inhibitor, delayed the onset and reduced the magnitude of skin disease in an AD-like skin-disease model of NC/Nga mice. Pyridone 6 displays potent inhibitory activity against JAK1 (IC50 = 15 nM for murine JAK1), JAK2 (IC50 = 1 nM), JAK3 (Ki = 5 nM), and Tyk2 (IC50 = 1 nM). Pyridone 6 is therapeutic for AD by modulating the balance of Th2 and Th17. JAK inhibitor Pyridone 6 suppresses asthmatic responses by inhibiting Th2 inflammation and that application of PLGA nanoparticles improves the therapeutic potency of Pyridone 6. Inhibition of JAK may be useful for the treatment of bone-resorptive diseases, such as osteoporosis. Pyridone 6 is a more sensitive and specific inhibitor of JAK-STAT3 activity compared with AG490 and potently inhibited the growth of primary myeloma cells and myeloma-derived cell lines grown on BMSCs.

References


Ordering information

Catalog size quantities and prices may be found at [http://www.interchim.com](http://www.interchim.com).
Please inquire for higher quantities (availability, shipment conditions).

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