SMARCA Bromodomains Inhibitor – PFI-3

**Chemical Name:** (E)-1-(2-hydroxyphenyl)-3-((1R,4R)-5-(pyridin-2-yl)-2,5-diazabicyclo[2.2.1]heptan-2-yl)prop-2-en-1-one

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Molecular Weight</td>
<td>321.37</td>
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<tr>
<td>Formula</td>
<td>C_{19}H_{19}N_{3}O_{2}</td>
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<tr>
<td>Purity</td>
<td>≥98%</td>
</tr>
<tr>
<td>CAS#</td>
<td>n/a</td>
</tr>
<tr>
<td>Solubility</td>
<td>DMSO up to 100 mM</td>
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<tr>
<td>Storage</td>
<td>Powder: 4 °C 1 year</td>
</tr>
<tr>
<td></td>
<td>DMSO: 4 °C 3 months</td>
</tr>
<tr>
<td></td>
<td>-20 °C 1 year</td>
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</tbody>
</table>

**Biological Activity:**

PFI-3 is a novel potent, selective and cell permeable inhibitor of SMARCA4 and PB1(5) bromodomains with IC_{50} ~ 89 nM and 48 nM respectively. It also inhibits SMARCA2, but has no interaction with the other subfamily branches including PB1(2-4) and a kinase panel of 36 kinases. It accelerates FRAP recovery in cells at a concentration of 1 μM. The SWI/SNF-related, Matrix-associated, Actin-dependent Regulator of Chromatin (SMARC) proteins integrate into complexes that remodel chromatin. The SMARC family A (SMARCA) members SMARCA2 (also known as BRM) and SMARCA4 (also known as BRG1) are helicases that contain structurally-related bromodomains for binding acetylated lysine residues on target proteins. PFI-3 is a very useful chemical probe to study the key chromatin remodeling and transcription control.

**How to Use:**

**In vitro:** PFI-3 was used at 1-10 μM final concentration in various in vitro assays.

**In vivo:** n/a

**Reference:**


Products are for research use only. Not for human use.