Product Data Sheet

(-)-JQ1

Cat. No.: A8181
CAS No.: 1268524-71-5
Formula: C23H25ClN4O2S
M.Wt: 456.99
Synonyms: (-)-JQ1
Target: Chromatin/Epigenetics
Pathway: Bromodomain
Storage: Store at -20°C

Solvent & Solubility

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass</th>
<th>Solvent Concentration</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1 mM</td>
<td>2.1882 mL</td>
<td>10.9412 mL</td>
<td>21.8823 mL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mM</td>
<td>0.4376 mL</td>
<td>2.1882 mL</td>
<td>4.3765 mL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mM</td>
<td>0.2188 mL</td>
<td>1.0941 mL</td>
<td>2.1882 mL</td>
</tr>
</tbody>
</table>

≥22.85 mg/mL in DMSO; insoluble in H2O; ≥46.9 mg/mL in EtOH with ultrasonic

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary: Stereoisomer of (+)-JQ1, used as negative control

IC₅₀ & Target: ~ 50 and 90 nM (BET bromodomain)

Cell Viability Assay

Cell Line: BRD4-dependent NMC cells
Preparation method: The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions: 250 nM, 72 hours for proliferation inhibition 250 nM, 48 hours for cell-cycle
In BRD4-dependent NMC cells, differentiation is expectedly accompanied by growth arrest, as demonstrated by reduced Ki67 staining, sustained inhibition of proliferation and G1 cell-cycle arrest. The quantitative RT–PCR for RAD21 and RAN was performed. (-)JQ1 enantiomer was an inactive control of (+)-JQ1. (+)-JQ1 potently decreased expression of both BRD4 target genes, whereas (-)-JQ1 had no effect.

Animal experiment

Animal models: Female NCr nude mice bearing NMC 797 xenografts
Dosage form: Intraperitoneal injection, 50 mg/kg, daily
Applications: After 4 days of therapy, mice were evaluated by FDG-PET imaging. A marked reduction in FDG uptake was observed with JQ1 ((+)/-) treatment, whereas vehicle-treated mice demonstrated progressive disease. Tumour-volume measurements confirmed a reduction in tumour growth with JQ1 treatment. JQ1 was well tolerated at this dose and schedule without overt signs of toxicity or weight loss.

Other notes: Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations


References

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.