Aprepitant

**Cat. No.:** A1684

**CAS No.:** 170729-80-3

**Formula:** C23H21F7N4O3

**M.Wt:** 534.43

**Synonyms:**

**Target:** Neuroscience

**Pathway:** Substance P/NK1 Receptor

**Storage:** Store at -20° C

---

### Solvent & Solubility

≥26.72 mg/mL in DMSO; insoluble in H2O; insoluble in EtOH

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concentration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 mM</td>
<td></td>
<td>1.8712 mL</td>
<td>9.3558 mL</td>
<td>18.7115 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td></td>
<td>0.3742 mL</td>
<td>1.8712 mL</td>
<td>3.7423 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td></td>
<td>0.1871 mL</td>
<td>0.9356 mL</td>
<td>1.8712 mL</td>
</tr>
</tbody>
</table>

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

---

### Biological Activity

**Shortsummary**

Substance P (SP) inhibitor

**IC₅₀ & Target**

In Vitro

**Cell Viability Assay**

**Cell Line:** Nalm-6 cells

**Preparation method:** The solubility of this compound in DMSO is ≥26.7mg/mL. 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:** 20 μM
Aprepitant decreased the metabolic activity with an estimated IC50 value of 20 μM. Aprepitant induced cell-growth inhibition and G1 cell-cycle arrest. Aprepitant significantly induced apoptosis in Nalm-6 cells. Aprepitant (20 μM) induced p53 accumulation and expression of pro-apoptotic p53 target genes.

### Animal experiment

**Animal models:** Male C57BL/6J mice  
**Dosage form:** Intraperitoneal injection, 10 mg/kg  
**Applications:** Aprepitant (10 mg/kg, i.p.) significantly attenuated AMPH-induced CPP expression and locomotor activation produced by AMPH and cocaine in mice. Aprepitant significantly enhanced the expression of CPP produced by morphine while significantly suppressing the locomotor activity of the mice conditioned with morphine.

**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.

### References


### Caution

**FOR RESEARCH PURPOSES ONLY. NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

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.
APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com