**Rocilinostat (ACY-1215)**

- **Cat. No.**: A4083
- **CAS No.**: 1316214-52-4
- **Formula**: C24H27N5O3
- **M.Wt.**: 433.5
- **Synonyms**:
- **Target**: DNA Damage/DNA Repair
- **Pathway**: HDAC
- **Storage**: Store at -20°C

### Solvent & Solubility

<table>
<thead>
<tr>
<th>Mass</th>
<th>Solvent</th>
<th>1mg</th>
<th>5mg</th>
<th>10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>DMSO</td>
<td>2.3068 mL</td>
<td>11.5340 mL</td>
<td>23.0681 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>DMSO</td>
<td>0.4614 mL</td>
<td>2.3068 mL</td>
<td>4.6136 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>DMSO</td>
<td>0.2307 mL</td>
<td>1.1534 mL</td>
<td>2.3068 mL</td>
</tr>
</tbody>
</table>

≥21.675 mg/mL in DMSO; insoluble in H2O; insoluble in EtOH

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

### Biological Activity

**Shortsummary**: Selective HDAC6 inhibitor

**IC₅₀ & Target**: 5 nM (HDAC6)

#### Cell Viability Assay

**Cell Line**: MM cells; PBMCs.

**Preparation method**: Soluble in DMSO > 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**: 0.16, 0.8, 4, 20 nM; MM cells: 24 h, PBMCs: 48 h.
### Applications:

ACY-1215 induces less cytotoxicity in PHA-stimulated or unstimulated PBMCs. In purified CD4+ T cells, ACY-1215 induces toxicity with IC50 value of 2.5 μM. In MM cell lines, ACY-1215 dose-dependently decreases viability with IC50 value of 2-8 μM and induces significant cytotoxicity. In MM.1S cells, ACY-1215 dose-dependently reduces DNA synthesis of MM cells adherent to BMSCs and also inhibits growth induced by IL-6 and IGF-1.

### Animal experiment

<table>
<thead>
<tr>
<th>Animal models:</th>
<th>Male SCID mice inoculated subcutaneously with MM.1S cells.</th>
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</thead>
<tbody>
<tr>
<td>Dosage form:</td>
<td>50 mg/kg; 5 days a week for 3 weeks; administrated orally.</td>
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<tr>
<td>Applications:</td>
<td>In human MM xenograft mouse model, ACY-1215 (50 mg/kg) significantly delays tumor growth. Treatment mice with ACY-1215 plus bortezomib significantly prolonged overall survival (OS) and induces a significant accumulation of polyubiquitinated proteins. Treatment with ACY-1215 plus bortezomib is well tolerated and have no significant influence on the body weight. In female SCID-beige mice inoculated intravenously with MM.1S-LucNeo cells, treatment with ACY-1215 (75 mg/kg) and bortezomib (1.5 mg/kg) significantly inhibits tumor growth and prolongs OS.</td>
</tr>
<tr>
<td>Preparation method:</td>
<td>Dissolved in 10% DMSO in 5% dextrose in water</td>
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<tr>
<td>Other notes:</td>
<td>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.</td>
</tr>
</tbody>
</table>

### References


temperature. Shortterm 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.