EMD638683

Cat. No.: A3389
CAS No.: 1181770-72-8
Formula: C18H18F2N2O4
M.Wt: 364.34
Synonyms: EMD 638683; EMD-638683
Target: Others
Pathway: SGK
Storage: Store at -20°C

**Solvent & Solubility**

insoluble in H2O; ≥18.2 mg/mL in DMSO; ≥45.8 mg/mL in EtOH with gentle warming

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Concentration</th>
<th>Mass 1mg</th>
<th>Mass 5mg</th>
<th>Mass 10mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>2.7447 mL</td>
<td>13.7234 mL</td>
<td>27.4469 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.5489 mL</td>
<td>2.7447 mL</td>
<td>5.4894 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.2745 mL</td>
<td>1.3723 mL</td>
<td>2.7447 mL</td>
</tr>
</tbody>
</table>

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

**Biological Activity**

Short summary: SGK1 inhibitor
IC₅₀ & Target: 3 μM (SGK1)

**Cell Viability Assay**

Cell Line: HeLa-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: 10 μM, 24 hours
### In Vivo

<table>
<thead>
<tr>
<th>Applications</th>
<th>As an inhibitor of SGK1, EMD638683 inhibited the phosphorylation of NDRG1 (N-Myc downstream-regulated gene 1), a specific target of SGK1. The IC50 value is 3.35 μM.</th>
</tr>
</thead>
</table>

### Animal experiment

<table>
<thead>
<tr>
<th>Animal models</th>
<th>SGK1 deficient mice ((sgk1-/-))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage form</td>
<td>In chow, 600mg/kg, 4 days</td>
</tr>
<tr>
<td>Applications</td>
<td>The tap drinking water was replaced by 10% fructose for 3 weeks to develop hyperinsulinemia. Treatment of EMD638683 for four days led to normalization of systolic blood pressure (from 111 ± 4 to 87 ± 3 mmHg). It did not significantly modify fluid and food intake and did not significantly alter the urinary Na+ and K+ excretion, but significantly increased the urinary output and significantly decreased body weight.</td>
</tr>
</tbody>
</table>

| 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. |

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### Product Citations


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### References


### Caution

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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.