Myristyl nicotinate

Cat. No.: HY-133027
CAS No.: 273203-62-6
Molecular Formula: C₂₀H₃₃NO₂
Molecular Weight: 319.48
Target: Others
Pathway: Others
Storage: Powder
-20°C 3 years
4°C 2 years
In solvent
-80°C 6 months
-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro
DMSO: 9.62 mg/mL (30.11 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Mass 1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mM</td>
<td>3.1301 mL</td>
<td>15.6504 mL</td>
<td>31.309 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.6260 mL</td>
<td>3.1301 mL</td>
<td>6.2602 mL</td>
</tr>
<tr>
<td>10 mM</td>
<td>0.3130 mL</td>
<td>1.5650 mL</td>
<td>3.1301 mL</td>
</tr>
</tbody>
</table>

Preparing Stock Solutions

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 0.96 mg/mL (3.00 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 0.96 mg/mL (3.00 mM); Clear solution

BIOLOGICAL ACTIVITY

Description
Myristyl nicotinate (Tetradecyl nicotinate) is an ester prodrug and a lipophilic derivative of Nicotinic acid. Myristyl nicotinate is being developed for delivery of Nicotinic acid into the skin for prevention of actinic keratosis and its progression to skin cancer. Myristyl nicotinate shows to stimulate epidermal differentiation in photodamaged skin, increasing skin NAD content and strengthening the skin barrier[1][2].

In Vitro
Myristyl nicotinate (Tetradecyl nicotinate) is used for treatment and prevention of conditions that involve skin barrier impairment such as chronic photodamage and atop dermatitis or for mitigating skin barrier impairment that results from therapy such as retinoids or steroids[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.
REFERENCES


Caution: Product has not been fully validated for medical applications. For research use only.
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