3,3',5-Triiodo-L-thyronine sodium

Cat. No.: HY-A0070
CAS No.: 55-06-1
Molecular Formula: C₁₅H₁₁I₃NNaO₄
Molecular Weight: 672.96
Target: Thyroid Hormone Receptor
Pathway: Others
Storage:
- Powder: -20°C, 3 years
- 4°C, 2 years
- In solvent: -80°C, 6 months
- -20°C, 1 month

SOLVENT & SOLUBILITY

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>DMSO : ≥ 42 mg/mL (62.41 mM)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&quot;≥&quot; means soluble, but saturation unknown.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Concentration</th>
<th>Mass 1 mg</th>
<th>Mass 5 mg</th>
<th>Mass 10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>1.4860 mL</td>
<td>7.4299 mL</td>
<td>14.8597 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.2972 mL</td>
<td>1.4860 mL</td>
<td>2.9719 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.1486 mL</td>
<td>0.7430 mL</td>
<td>1.4860 mL</td>
</tr>
</tbody>
</table>

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

BIOLOGICAL ACTIVITY

Description 3,3',5-Triiodo-L-thyronine sodium is an active form of thyroid hormone, which binds to β1 thyroid hormone receptor (TRβ1), and activates its activity.

IC₅₀ & Target TRβ1[1][2]

In Vitro 3,3',5-Triiodo-L-thyronine (T3, 100 nM) stimulates the proliferation of hepatocarcinoma cells in which TRβ1 is overexpressed[1]. 3,3',5-Triiodo-L-thyronine binds to human β1 thyroid hormone receptor (hTRβ1), and change its conformation. 3,3',5-Triiodo-L-thyronine promotes growth, induces differentiation and regulates metabolic effects[2].
Cell Assay

Thyroid hormone depleted (Td) serum is prepared. The growth of hepatocarcinoma cells in methylcellulose is performed. To determine the effect of 3,3′,5′-Triiodo-L-thyronine (T3) on the growth of cells, cells are plated at a density of $3 \times 10^4$ cells/60 mm dish on day 0, and incubated in medium containing 5% regular serum, 5% Td or 5% Td and 100 nM T3. The colony formation in methylcellulose is scored 3 weeks after initial plating\cite{1}.

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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