**LX-1031**

Cat. No.: HY-13041  
CAS No.: 945976-76-1  
Molecular Formula: \( \text{C}_{28}\text{H}_{25}\text{F}_{3}\text{N}_{4}\text{O}_{4} \)  
Molecular Weight: 538.52  
Target: Tryptophan Hydroxylase  
Pathway: Metabolic Enzyme/Protease  
Storage:  
- Powder  
  -20°C: 3 years  
  4°C: 2 years  
- In solvent  
  -80°C: 6 months  
  -20°C: 1 month

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### Solvent & Solubility

**In Vitro**  
DMSO: \( \geq 34 \text{ mg/mL (63.14 mM)} \)  
*“\( \geq \)“ means soluble, but saturation unknown.*

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Solvent Concentration</th>
<th>1 mg</th>
<th>5 mg</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 mM</td>
<td>1.8569 mL</td>
<td>9.2847 mL</td>
<td>18.5694 mL</td>
</tr>
<tr>
<td></td>
<td>5 mM</td>
<td>0.3714 mL</td>
<td>1.8569 mL</td>
<td>3.7139 mL</td>
</tr>
<tr>
<td></td>
<td>10 mM</td>
<td>0.1857 mL</td>
<td>0.9285 mL</td>
<td>1.8569 mL</td>
</tr>
</tbody>
</table>

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

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### BIOLOGICAL ACTIVITY

**Description**  
LX-1031 is a potent, orally available tryptophan 5-hydroxylase (TPH) inhibitor that reduces serotonin (5-HT) synthesis peripherally.

**In Vivo**  
With oral administration of LX-1031 in mice, the average 5-HT reductions in the jejunum relative to control are approximately 33, 51, and 66% with the 15, 45 and 135 mg/kg/day doses respectively. In a preliminary report, the effects of LX-1031, 100 mg/kg daily, on 5-HT levels in jejunal mucosa are reversible within 2 days of discontinuation in mice[1]. LX-1031 dose-dependently reduces expression of 5-HT in the duodenum, jejunum and ileum, but has no effect on brain 5-HT levels in preclinical assay[2].

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### REFERENCES

[1]. Camilleri M. LX-1031, a tryptophan 5-hydroxylase inhibitor, and its potential in chronic diarrhea associated with increased serotonin. Neurogastroenterol