[Leu5]-Enkephalin

Cat. No.: HY-P0288  
CAS No.: 58822-25-6  
Molecular Formula: C₂₈H₃₇N₅O₇  
Molecular Weight: 555.62  
Sequence: Tyr-Gly-Gly-Phe-Leu  
Sequence Shortening: YGGFL  
Target: Opioid Receptor; Endogenous Metabolite  
Pathway: GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease  
Storage: Powder  
-80°C: 2 years  
-20°C: 1 year  
In solvent:  
-80°C: 6 months  
-20°C: 1 month

SOLVENT & SOLUBILITY

<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>DMSO</td>
<td>≥ 150 mg/mL (269.97 mM)</td>
<td>1.7998 mL</td>
<td>8.9990 mL</td>
<td>17.9979 mL</td>
</tr>
<tr>
<td>H₂O</td>
<td>100 mg/mL (179.98 mM; Need ultrasonic)</td>
<td>0.3600 mL</td>
<td>1.7998 mL</td>
<td>3.5996 mL</td>
</tr>
</tbody>
</table>

Preparing Stock Solutions

10 mM  
0.1800 mL  
0.8999 mL  
1.7998 mL

BIOLOGICAL ACTIVITY

Description  
[Leu5]-Enkephalin is a pentapeptides with morphine like properties. [Leu5]-Enkephalin is a five amino acid endogenous peptide that acts as an agonist at opioid receptors.

IC₅₀ & Target  
Human Endogenous Metabolite

In Vitro  
Enkephalins (met-, leu-enkephalin, and enkephalin B) and dynorphins are two classes of opioid peptides found in the spinal dorsal horn. Mu, delta, and kappa are three major subtypes of opioid receptors. Enkephalins are putative endogenous ligands for delta opioid receptors, and dynorphins are endogenous ligands for the kappa opioid receptors. Three receptor types resembling the vertebrate δ- and κ-type opioid receptors have been characterized.
pharmacologically in nervous tissues (e.g. $K_i=18.9$ nM for Leu-enkephalin) and localized by autoradiography at CHH terminals in the SG of C. maenas\cite{1}. Leucine-enkephalin is a pentapeptide with morphine-like properties, naturally present in mammalian brain\cite{2}.

REFERENCES

[1]. Leu-enkephalin is a five amino acid endogenous peptide that acts as an agonist at opioid receptors.