# N-terminally acetylated Leu-enkephalin

## PRODUCT DESCRIPTION

N-terminally acetylated Leu-enkephalin is a 7-amino-acid An endogenous opioid pentapeptide that binds delta-opioid receptors (DOR) with high affinity and mu-opioid receptors (MOR) with moderate affinity. Enkephalins mediate analgesic, anxiolytic, and reward signaling in the central and peripheral nervous systems. Used in pain, addiction, and neuropharmacology research for studying opioid receptor selectivity, signaling mechanisms, and non-addictive analgesic development.

## PRODUCT SPECIFICATIONS

| | |
|---|---|
| **Catalog Number** | BPT0316 |
| **Molecular Weight** | 597.6578 Da |
| **Molecular Formula** | C30H39N5O8 |
| **Purity** | Peak Area by HPLC >=95% |
| **Form** | Lyophilized |
| **Source** | Synthetic (Chemical Synthesis, SPPS) |
| **Endotoxin** | N/A (Synthetic peptide) |

## AMINO ACID SEQUENCE

**One-Letter Code:**

```
Ac-YGGFl
```

**Three-Letter Code:**

```
Ac-Tyr-Gly-Gly-Phe-{D-Leu}-OH
```

## RESEARCH APPLICATIONS

| | |
|---|---|
| **Application** | Receptor binding |
| **Biomarker Target** | delta-Opioid Receptor (DOR) |
| **Research Area** | Neuroscience |
| **Sub-category** | Opioid Signaling & Pain |

## STORAGE & HANDLING

| | |
|---|---|
| **Storage Temperature** | -20 deg C |
| **Form** | Lyophilized |
| **Stability** | Lyophilized product stable for 24 months at -20 deg C |
| **Reconstitution** | Reconstitute in sterile water or appropriate buffer |
| **After Reconstitution** | Aliquot and store at -20 to -80 deg C |
| **Avoid** | Repeated freeze-thaw cycles |

## AVAILABLE SIZES

| | |
|---|---|
| **Size Options** | 1 mg, 10 mg |
| **Usage** | Research use |

## QUALITY CONTROL

| | |
|---|---|
| **Purity Method** | HPLC, Mass Spectrometry (MS) |
| **Identity** | Confirmed by ESI-MS or MALDI-TOF |
| **Purity** | Peak Area by HPLC >=95% |
| **Documentation** | Certificate of Analysis (CoA) available upon request |