**Synaptamide**

Cat. No.: HY-100197  
CAS No.: 162758-94-3  
Molecular Formula: $C_{24}H_{37}NO_2$  
Molecular Weight: 371.56  
Target: PKA  
Pathway: Protein Tyrosine Kinase/RTK; Stem Cell/Wnt  
Storage: Powder -20°C 3 years  
In solvent: -80°C 6 months; -20°C 1 month

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### Solvent & Solubility

**In Vitro**  
Ethanol: 25 mg/mL (67.28 mM; Need ultrasonic)

<table>
<thead>
<tr>
<th>Preparing Stock Solutions</th>
<th>Mass (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass 1 mg</td>
<td>1 mg</td>
</tr>
<tr>
<td>1 mM</td>
<td>2.6914 mL</td>
</tr>
<tr>
<td>5 mM</td>
<td>0.5383 mL</td>
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<tr>
<td>10 mM</td>
<td>0.2691 mL</td>
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Please refer to the solubility information to select the appropriate solvent.

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### BIOLOGICAL ACTIVITY

**Description**  
Synaptamide is a potent mediator for neurogenic differentiation of NSCs acting through PKA/CREB activation. Target: in vitro: Synaptamide inhibits forskolin-mediated cAMP production (IC50 =6 μM) in CHO-HCR cells. Synaptamide decreases the viability of the LNCaP and PC3 prostate cancer cell lines (IC50=120-130 μM) grown in media containing 10% fetal bovine serum. [1] Synaptamide is an endogenous DHA metabolite with endocannabinoid-like structure, promotes neurite growth, synaptogenesis and synaptic function. Synaptamide potently induces neuronal differentiation of NSCs. Treatment of NSCs with Synaptamide at low nanomolar concentrations significantly increased the number of MAP2 and Tuj-1 positive neurons with concomitant induction of PKA/CREB phosphorylation. [2]

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### REFERENCES
