**Proteins** 

# N-p-trans-Coumaroyltyramine

Cat. No.: HY-N2230 CAS No.: 36417-86-4 Molecular Formula:  $C_{17}H_{17}NO_3$ Molecular Weight: 283.33

Target: Cholinesterase (ChE); Parasite Pathway: Neuronal Signaling; Anti-infection

Storage: 4°C, protect from light

\* In solvent: -80°C, 6 months; -20°C, 1 month (protect from light)

**Product** Data Sheet

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 100 mg/mL (352.95 mM; Need ultrasonic)

| Preparing<br>Stock Solutions | Solvent Mass<br>Concentration | 1 mg      | 5 mg       | 10 mg      |
|------------------------------|-------------------------------|-----------|------------|------------|
|                              | 1 mM                          | 3.5295 mL | 17.6473 mL | 35.2945 mL |
|                              | 5 mM                          | 0.7059 mL | 3.5295 mL  | 7.0589 mL  |
|                              | 10 mM                         | 0.3529 mL | 1.7647 mL  | 3.5295 mL  |

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

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (8.82 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (8.82 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (8.82 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

| Description               | acetylcholinesterase (AChE) ii | p-trans-Coumaroyltyramine is a cinnamoylphenethyl amide isolated from polygonum hyrcanicum, acts as an etylcholinesterase (AChE) inhibitor with an an IC $_{50}$ of 122 $\mu$ M. N-p-trans-Coumaroyltyramine exhibits anti-trypanosomal tivity with an IC $_{50}$ of 13.3 $\mu$ M for T. brucei rhodesiense [1][2]. |  |
|---------------------------|--------------------------------|---|--|
| IC <sub>50</sub> & Target | AChE                           | Trypanosoma   |  |

#### **REFERENCES**

| [1]. Moradi-Afrapoli F, et al. Cinnamoylphenethyl amides from Polygonum hyrcanicum possess anti-trypanosomal activity. Nat Prod Commun. 2012 Jun;7(6):753-5.                        |
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| [2]. Kim DK, et al. Inhibitory effect of trans-N-p-coumaroyl tryamine from the twigs of Celtis chinensis on the acetylcholinesterase. Arch Pharm Res. 2003 Sep;26(9):735-8.         |
| [2]. Mill DN, et al. Illillollory effect of trans-14-p-coulinal by tryanille from the twigs of cetus chinerists on the acetylcholinesterase. Aid if framines. 2003 3ep,20(9),733-6. |
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| Caution: Product has not been fully validated for medical applications. For research use only.  |
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