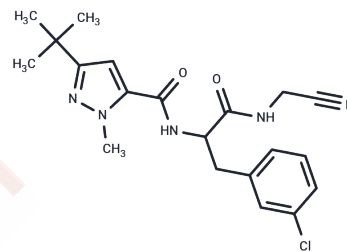


Cathepsin Inhibitor 1

Chemical Properties

CAS No. : 225120-65-0
 Formula: C₂₀H₂₄ClN₅O₂
 Molecular Weight: 401.89
 Appearance: no data available
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

| | |
|----------------------------|--|
| Description | Cathepsin Inhibitor 1 is an inhibitor of Cathepsin (L, L2, S, K, B) with pIC ₅₀ of 7.9, 6.7, 6.0, 5.5 and 5.2, respectively. |
| Targets(IC ₅₀) | Cysteine Protease |
| In vivo | Ciproxifan intravenously injected at dose of 1 mg/kg decreases the H ₃ -receptor ligand concentration in serum in Male Swiss mice, with half-times of distribution phase of 13min and elimination phase of 87 min, respectively. Ciproxifan (1 mg/kg, p.o.) rises brain t-MeHA level rapidly in Male Swiss mice, being already significantly increased after 30 min, reaching a plateau between 90 and 180 min and still remaining enhanced after 270 min. Ciproxifan leads to ED ₅₀ values of 0.23 mg/kg in cerebral cortex, 0.28 mg/kg in striatum and 0.30 mg/kg in hypothalamus in Male Wistar rats. Ciproxifan (3 mg/kg, i.p.) significantly increases choice accuracy as evaluated in the five-choice task performed using a short stimulus duration. Ciproxifan (0.15-2 mg/kg, p.o.) induces marked signs of neocortical electroencephalogram activation manifested by enhanced fast-rhythms density and an almost total waking state in cats. [1] Ciproxifan (10 mg/kg i. p.) enhances prepulse inhibition in the DBA/2 strain mice. [3] Ciproxifan (3 mg/kg i.p.) alleviates hyperactivity and cognitive deficits in the APP Tg2576 mouse model of Alzheimer's disease. [4] Ciproxifan (3 mg/kg i.p.) improves accuracy and decreased impulsivity in adult male hooded Lister rats. [5] |

Solubility Information

| | |
|------------|--|
| Solubility | DMSO: 74 mg/mL (184.13 mM),Sonication is recommended. Ethanol: 47 mg/mL (116.95 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|------------|------------|
| 1 mM | 2.4882 mL | 12.4412 mL | 24.8824 mL |
| 5 mM | 0.4976 mL | 2.4882 mL | 4.9765 mL |
| 10 mM | 0.2488 mL | 1.2441 mL | 2.4882 mL |
| 50 mM | 0.0498 mL | 0.2488 mL | 0.4976 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Asaad N, et al. Bioorg Med Chem Lett, 2009, 19(15), 4280-4283.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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