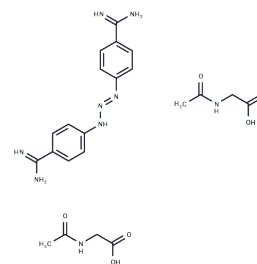


Diminazene Aceturate

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 908-54-3 |
| Formula: | C ₂₂ H ₂₉ N ₉ O ₆ |
| Molecular Weight: | 515.52 |
| Storage: | Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA. |



Biological Description

| | |
|---------------|--|
| Description | Diminazene is a trypanocidal agent. |
| Targets(IC50) | Parasite,Angiotensin-converting Enzyme (ACE),Serine Protease |
| In vitro | Administering 7 mg/kg, i.m. of Diminazene aceturate effectively clears parasites from the bloodstream of infected dogs. An initial treatment dose of 3.5 mg/kg of Diminazene aceturate significantly alleviates <i>T. evansi</i> infection in horses and mules, with parasites being eliminated from the peripheral blood within 1-7 days and 1-14 days, respectively. |
| In vivo | Transport of [3H] diminazene is substantially inhibited by pentamidine and adenosine, with <i>K_i</i> values of 0.21 μM and 0.25 μM, respectively. Notably, [3H] diminazene accumulates in yeast cells expressing TbAT1 at a rate of 0.0083 pmol/10 ⁷ cells/s when treated with 2.5 μM of the radioactive compound, and this accumulation is completely suppressed by 1 mM of unlabeled Diminazene Aceturate. |

Solubility Information

| | |
|---------------------|---|
| Solubility | H ₂ O: 92 mg/mL (178.46 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 4.36 mg/mL (8.46 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (1.94 mM),Sonication is recommended. 10% DMSO+90% Saline: 0.44 mg/mL (0.85 mM),Solution. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|-----------|-----------|------------|
| 1 mM | 1.9398 mL | 9.6989 mL | 19.3979 mL |
| 5 mM | 0.388 mL | 1.9398 mL | 3.8796 mL |
| 10 mM | 0.194 mL | 0.9699 mL | 1.9398 mL |
| 50 mM | 0.0388 mL | 0.194 mL | 0.388 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

de Koning HP, et al. *Antimicrob Agents Chemother*, 2004, 48(5), 1515-1519.

Tuntasuvan D, et al. *Vet Parasitol*, 2003, 110(3-4), 227-233.

Akpa PO, et al. *Vet Parasitol*, 2008, 151(2-4), 139-149.

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