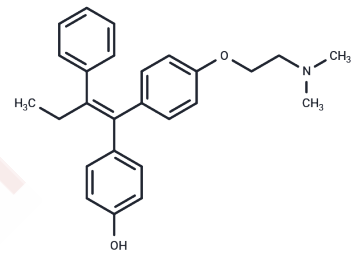


(E/Z)-4-Hydroxytamoxifen

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 68392-35-8 |
| Formula: | C ₂₆ H ₂₉ NO ₂ |
| Molecular Weight: | 387.51 |
| 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 | (E/Z)-4-Hydroxytamoxifen (Afimoxifene) is a novel estrogen inhibitor, commonly used in research for various estrogen-dependent conditions, including cyclic mastalgia and gynecomastia. |
| Targets(IC50) | Estrogen Receptor/ERR, Estrogen/progestogen Receptor, Endogenous Metabolite, Drug Metabolite |
| In vitro | 4-OHT is a potent activator of ER and has been shown to have a higher affinity for estrogen receptors compared to tamoxifen. It has significant dose and time-dependent direct effects to alter the contractile function of isolated adult rat cardiac myocytes. 4-HT activates on-target modification frequency for intein-Cas9 variants |
| Cell Research | Cell lines: Adult Rat and Mouse Cardiac Myocytes Concentrations: 0, 0.5, 1, 3, 5, and 10 μM Incubation Time: 15-45 min Method: For sarcomere length measurements, cells are covered in Tyrode's containing 4OHT, allowed to reach 36 ± 1°C, and then stimulated at 0.2 Hz. |
| Animal Research | Animal Models: Sprague-Dawley rats Formulation: dissolved in 200 μl tricapylin Dosages: 21 mg/kg, 54 μmol/kg Administration: oral administration |

Solubility Information

| | |
|---------------------|---|
| Solubility | DMSO: 60 mg/mL (154.83 mM), Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.16 mM), Sonication is recommended. <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 | 2.5806 mL | 12.9029 mL | 25.8058 mL |
| 5 mM | 0.5161 mL | 2.5806 mL | 5.1612 mL |
| 10 mM | 0.2581 mL | 1.2903 mL | 2.5806 mL |
| 50 mM | 0.0516 mL | 0.2581 mL | 0.5161 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

Burke PJ, et al. Design, synthesis, and biological evaluation of doxorubicin-formaldehyde conjugates targeted to breast cancer cells. *J Med Chem.* 2004 Feb 26; 47(5):1193-206.

Wang D, Yin Z, Wang H, et al. The super elongation complex drives transcriptional addiction in MYCN-amplified neuroblastoma. *Science Advances.* 2023, 9(13): eadf0005.

Hui Y, et al. Sulfation of afimoxifene, endoxifen, raloxifene, and fulvestrant by the human cytosolic sulfotransferases (SULTs): A systematic analysis[J]. *Journal of pharmacological sciences*, 2015, 128(3): 144-149.

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