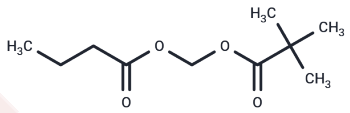
# Data Sheet (Cat.No.T16545)

TargetMol

## Pivanex

### Chemical Properties



CAS No. : 122110-53-6

Formula: C10H18O4

Molecular Weight: 202.25

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | Pivanex (Pivalyloxymethyl butyrate) is an orally active HDAC inhibitor and an antimetastatic and antiangiogenic agent. Pivanex downregulates the Bcr-Abl protein and enhances apoptosis. |
| Targets(IC50) | Apoptosis,HDAC,Bcr-Abl |
| In vitro | Pivanex has selective toxicity to acute leukemia and drug-resistant primary leukemia and cancer cell lines. Pivanex (200 μM) causes enhancement in the G2-M phase, moderate enhancement in the S phase, and a slight reduction in G0-G1 of the cell cycle. Pivanex (100-500 μM) shows significant anti-proliferation activity in K562 cells. Pivanex (100-500 μM) also increases apoptosis and caspase activity in K562 cells [1][2]. |
| In vivo | Pivanex treatment also marked delays in the end stage of disease as defined by the onset of body mass loss. Pivanex (200 mg/kg, b.i.d, daily) obviously improves the survival of SMN7 SMA mice [3]. |

### Solubility Information

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|---|---|
| Solubility | DMSO: 100 mg/mL (494.44 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (19.78 mM),Sonication is recommended.<br>*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.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 4.9444 mL | 24.7219 mL | 49.4438 mL |
| 5 mM | 0.9889 mL | 4.9444 mL | 9.8888 mL |
| 10 mM | 0.4944 mL | 2.4722 mL | 4.9444 mL |
| 50 mM | 0.0989 mL | 0.4944 mL | 0.9889 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

Rabizadeh E, et al. Pivanex, a histone deacetylase inhibitor, induces changes in BCR-ABL expression and when combined with STI571, acts synergistically in a chronic myelocytic leukemia cell line. Leuk Res. 2007 Aug;31(8): 1115-23. Epub 2007 Jan 30.

Batova A, et al. The histone deacetylase inhibitor AN-9 has selective toxicity to acute leukemia and drug-resistant primary leukemia and cancer cell lines. Blood. 2002 Nov 1;100(9):3319-24.

Edwards JD, et al. Effect of the Butyrate Prodrug Pivaloyloxymethyl Butyrate (AN9) on a Mouse Model for Spinal Muscular Atrophy. J Neuromuscul Dis. 2016 Nov 29;3(4):511-515.