

Product Data Sheet

Product Name: Malotilate

Cat. No.: GC14751

Chemical Properties

Cas. No. 59937-28-9

Chemical Name dipropan-2-yl 2-(1,3-dithiol-2-ylidene)propanedioate

SMILES CC(C)OC(=O)C(=C1SC=CS1)C(=O)OC(C)C

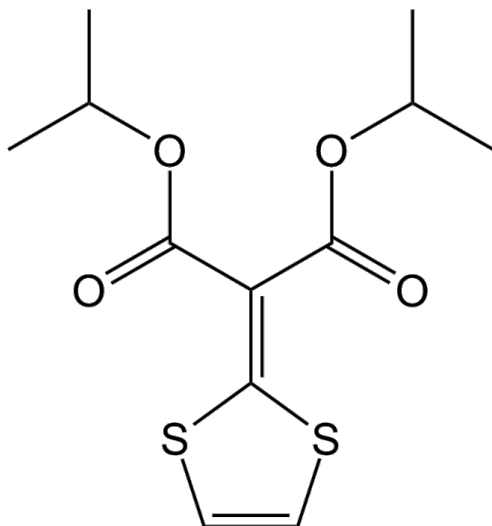
Formula $C_{12}H_{16}O_4S_2$ M.Wt 288.38

Solubility $\geq 14.4\text{mg/mL}$ in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

IC50: N/A

Malotilate (diisopropyl-1,3-dithiol-2-ylidenemalonate) is a novel hepatotrophic drug, which can improve protein metabolism and stimulate hepatocyte regeneration.

Caution: Product has not been fully validated for medical applications. For research use only.

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In vitro: The in-vitro invasion assay employing a rat lung endothelial cell monolayer indicated that pretreatment of the lung endothelial cells, but not c-SST-2 cells, with malotilate reduced the invasion of the RLE monolayer by c-SST-2 cells significantly. The in-vitro vascular permeability assay also demonstrated malotilate could prevent the permeability increase of the lung endothelial cell monolayer by serum starvation. In contrast, the gelatinase production and adhesion to the RLE cell monolayer of c-SST-2 cells were not affected by malotilate treatment [1].

In vivo: Malotilate was administered to syngeneic SHR rats orally from 7 days before or after s.c. inoculation of c-SST-2 cells until the end of the experiments. In the malotilate-treated rats, pulmonary metastasis was suppressed markedly when compared with the non-treated rats. Moreover, in the rats treated with malotilate for 19 days after inoculation of c-SST-2 cells, lung metastasis was also suppressed significantly [1].

Clinical trial: A previous clinical trial results indicated that malotilate could accelerate the recovery of impaired protein metabolism in alcoholic liver disease and thus malotilate might be useful for the treatment of alcoholic liver diseases [2].

References:

- [1] Nagayasu H, Hamada J, Kawano T, Konaka S, Nakata D, Shibata T, Arisue M, Hosokawa M, Takeichi N, Moriuchi T. Inhibitory effects of malotilate on invasion and metastasis of rat mammary carcinoma cells by modifying the functions of vascular endothelial cells. *Br J Cancer*. 1998 May;77(9):1371-7.
- [2] Takase S, Matsuda Y, Yasuhara M, Takada A. Effects of malotilate treatment on alcoholic liver disease. *Alcohol*. 1989 May-Jun;6(3):219-22.

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