
Product Data Sheet

Product Name: 5-Iminodaunorubicin hydrochloride

Cat. No.: GC61881

Chemical Properties

Cas. No. 67324-99-6

SMILES COC(C=CC=C1C(C2=C(O)C(C[C@@](C(C)=O)(C[C@@H]3O[C@@H]4O[C@H]([C@H]([C@H](C4)N)O)C)O)=C3C(O)=C52)=O)=C1C5=N.[H]ClFormula C₂₇H₃₁ClN₂O₉

M.Wt 563

Solubility DMSO : 200 mg/mL (355.24 mM)

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

5-Iminodaunorubicin hydrochloride is a quinone-modified anthracycline that retains antitumor activity[1]. 5-Iminodaunorubicin hydrochloride produces protein-concealed DNA strand breaks in cancer cells[2].

In mouse leukemia L1210 cells, 5-Iminodaunorubicin produces protein-concealed DNA strand breaks. Many of the 5-iminodaunorubicin breaks may arise from apposed single-strand breaks (i.e., double-strand breaks)[2].

In rat, 5-Iminodaunorubicin (5-ID; 1-16 mg/kg) treatment produces widening of the QRS complex, increased R- and S-wave voltage, and prolonged the Q alpha T interval. And the quinone redox cycling is suppressed in 5-Iminodaunorubicin. 5-Iminodaunorubicin shows lower cardiotoxic[1].

References:

[1]. R A Jensen, et al. Electrocardiographic and transmembrane potential effects of 5-iminodaunorubicin in the rat. Cancer Res. 1984 Sep;44(9):4030-9.

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

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[2]. L A Zwelling, et al. Cytotoxicity and DNA strand breaks by 5-iminodaunorubicin in mouse leukemia L1210 cells: comparison with adriamycin and 4'-(9-acridinylamino)methanesulfon-m-anisidide. Cancer Res. 1982 Jul;42(7):2687-91.

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