
Product Data Sheet

Product Name: Fanotaprim

Cat. No.: GC62968

Chemical Properties

Cas. No. 2120282-75-7

Formula $C_{19}H_{22}N_8O$ M.Wt 378.43

Solubility DMSO : 33.33 mg/mL (88.07 mM; ultrasonic and warming and heat to 60°C) Storage

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**

Fanotaprim is a dihydrofolate reductase (DHFR) inhibitor with IC₅₀s of 1.57 and 308 nM for tgDHFR (Toxoplasma gondii DHFR) and hDHFR (human DHFR), respectively. Fanotaprim has the potential for the research of toxoplasmosis[1].

Fanotaprim shows parasitocidal and antiproliferative effects with EC₅₀s of 13 and 7300 nM against the type I RH strain of T. gondii and MCF-7 cells, respectively[1]. Fanotaprim shows ability to inhibit the growth of T. gondii strains in vitro with EC₅₀s ranging 7.6~29.8 nM (GT1, ME49, CTG, RUB and VAND)[1].

Fanotaprim (1-10 mg/kg; p.o.; daily; beginning on day 1 through day 7) shows highly effective in control of acute infection by highly virulent strains of T. gondii in the murine model[1]. Fanotaprim (1mg/kg; i.v; mouse) shows CL, Vd, and t_{1/2} values of 10.6 mL/min/kg, 1.14 L/kg, and 3.9 hours, respectively[1]. Fanotaprim (0.83 mg/kg; p.o; mouse) shows F, C_{max}, T_{max}, and AUC_{0-last} of 47.3%, 178 ng/mL, 0.05 hours and 750 ng h/mL, respectively[1].

[1]. Hopper AT, et al. Discovery of Selective Toxoplasma gondii Dihydrofolate Reductase Inhibitors for the Treatment of Toxoplasmosis. J Med Chem. 2019;62(3):1562-1576.

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

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