

Product Data Sheet

Product Name: Laniquidar

Cat. No.: GC83390

Chemical Properties

Cas. No. 197509-46-9

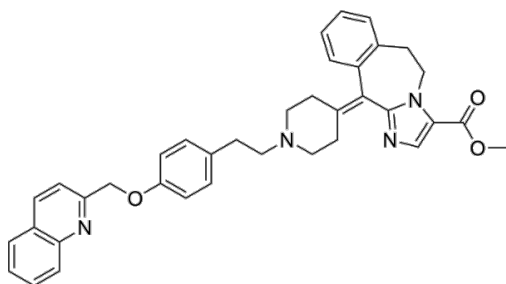
Formula $C_{37}H_{36}N_4O_3$ M.Wt 584.71

Solubility DMSO: 10 mg/mL (17.10 mM; Need ultrasonic) 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



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

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Background

Laniquidar is a non-competitive P-gp inhibitor with an IC₅₀ of 0.51 μ M. Laniquidar binds to the P-gp transporter with high affinity and exhibits low activity as a substrate. Laniquidar is applicable to epilepsy-related research [1].

In Vivo, ¹¹C]laniquidar (20-100 MBq; i.v.; single dose) shows low cerebral uptake in healthy Wistar rats, which is significantly increased by cyclosporine A pretreatment but unaffected by valspodar, and exhibits relatively low in vivo plasma metabolism[1].

In Vitro, Laniquidar potently inhibits purified P-glycoprotein with an IC₅₀ of 0.51 μ M, acts primarily as an inhibitor rather than a substrate, and has higher P-gp binding affinity than verapamil[1].

References:

[1]. Luurtsema G, et al. Evaluation of [¹¹C]laniquidar as a tracer of P-glycoprotein: radiosynthesis and biodistribution in rats. Nucl Med Biol. 2009;36(6):643-649.

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