

Product Data Sheet

Product Name: GDC-0310

Cat. No.: GC64206

Chemical Properties

Cas. No. 1788063-52-4

Formula $C_{25}H_{29}Cl_2FN_2O_4S$

M.Wt 543.48

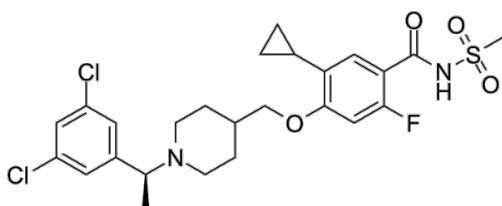
Solubility

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

GDC-0310 is a selective acylsulfonamide voltage-gated sodium channel 1.7 (Na_v1.7) inhibitor with an IC₅₀ value of 0.6nM^[1]. Na_v1.7 is a complex protein with multiple druggable sites that plays a vital role in the transmission of pain signals^[2]. GDC-0310 is an orally available small molecule Na_v1.7 inhibitor that can be used to treat pain^[3, 4]. Compared with GDC-0276 (Catalog No.: GC39559), GDC-0310 exhibits better metabolic stability, Na_v selectivity and pharmacokinetic characteristics^[5].

References:

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

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- [1] Safina B S, McKerrall S J, Sun S, et al. Discovery of acyl-sulfonamide Nav1. 7 inhibitors GDC-0276 and GDC-0310[J]. Journal of medicinal chemistry, 2021, 64(6): 2953-2966.
- [2] McKerrall S J, Sutherlin D P. Nav1. 7 inhibitors for the treatment of chronic pain[J]. Bioorganic & medicinal chemistry letters, 2018, 28(19): 3141-3149.
- [3] Stevens E B, Stephens G J. Recent advances in targeting ion channels to treat chronic pain[J]. British journal of pharmacology, 2018, 175(12): 2133.
- [4] Stumpf A, Cheng Z K, Beaudry D, et al. Improved synthesis of the Nav1. 7 inhibitor GDC-0276 via a highly regioselective SNAr reaction[J]. Organic Process Research & Development, 2019, 23(9): 1829-1840.
- [5] Asiri Y I, Hassan M Z. An Overview of Ion Channels Therapeutics in the Treatment of Pain[J]. Arabian Journal of Chemistry, 2023: 105180.

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