

Product Data Sheet

Product Name: ALDH3A1-IN-4

Cat. No.: GC79558

Chemical Properties

Cas. No. 324777-01-7

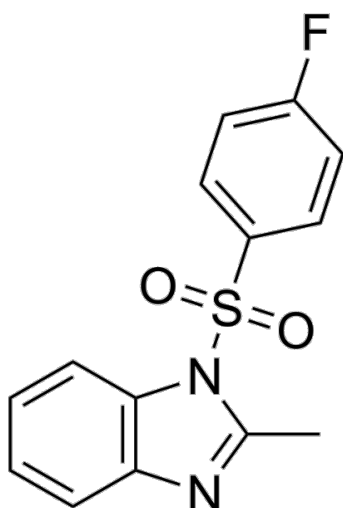
Formula $C_{14}H_{11}FN_2O_2S$ M.Wt 290.31

Solubility DMSO: 100 mg/mL (344.46 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



Background

ALDH3A1-IN-4 is a selective ALDH3A1 inhibitor with an IC_{50} of 0.2 μ M. ALDH3A1-IN-4 binds to the aldehyde-binding pocket of ALDH3A1 via hydrophobic interactions and van der Waals forces.

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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ALDH3A1-IN-4 acts as a chemosensitizer that sensitizes ALDH3A1-expressing cancer cells to the antiproliferative effect of mafosfamide, but does not produce a sensitizing effect on non-cancer cells that do not express ALDH3A1. ALDH3A1-IN-4 is applicable to research related to lung adenocarcinoma and glioblastoma [1].

In Vitro, ALDH3A1-IN-4 (compound CB7) (10 μ M; 1 min) potently inhibits ALDH3A1 activity in ALDH3A1-expressing cancer cell lysates[1]. ALDH3A1-IN-4 (10 μ M; 19 h) selectively sensitizes ALDH3A1-expressing A549 and SF767 cancer cells to mafosfamide[1].

References:

[1]. Parajuli B, et al. Selective ALDH3A1 inhibition by benzimidazole analogues increase mafosfamide sensitivity in cancer cells. J Med Chem. 2014;57(2):449-461.

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