

GW 583340 dihydrochloride

Chemical Properties

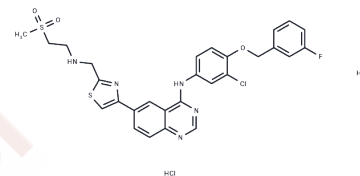
CAS No. : 1173023-85-2

Formula: C₂₈H₂₇Cl₃FN₅O₃S₂

Molecular Weight: 671.03

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

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| Description | GW 583340 dihydrochloride is a potent and orally available dual EGFR/ErbB2 (epidermal growth factor receptor/tyrosine kinase) inhibitor and is capable of reversing ABCG2- and ABCB1-mediated resistance. GW 583340 dihydrochloride selectively inhibits the growth of human tumor cells overexpressing EGFR and ErbB2, selectively inhibits the growth of human tumor cells overexpressing EGFR and ErbB2, and inhibits 80% of tumor growth in a mouse xenograft model, with potential anticancer activity. |
| Targets(IC50) | EGFR |
| In vitro | Methods: GW 583340 dihydrochloride (5 μM) was used to treat cells overexpressing ABCG2 to investigate its effects on the accumulation of anticancer substrates of ABCB1 and ABCG2 in cells overexpressing ABCB1 and ABCG2. Results: GW 583340 dihydrochloride significantly increased the intracellular level of [3H]-MX in cells overexpressing ABCG2. GW 583340 dihydrochloride (2.5 μM) reversed ABCB1- and ABCG2-mediated MDR. [1] |

Solubility Information

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| Solubility | DMSO: 40 mg/mL (59.61 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
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Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|------------|------------|-------------|
| 1 mM | 1.4902 mL | 7.4512 mL | 14.9025 mL |
| 5 mM | 0.298 mL | 1.4902 mL | 2.9805 mL |
| 10 mM | 0.149 mL | 0.7451 mL | 1.4902 mL |
| 50 mM | 0.0298 mL | 0.149 mL | 0.298 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Sodani K, et al. GW583340 and GW2974, human EGFR and HER-2 inhibitors, reverse ABCG2- and ABCB1-mediated drug resistance. *Biochem Pharmacol.* 2012 Jun 15;83(12):1613-22.

Aird KM, et al. ErbB1/2 tyrosine kinase inhibitor mediates oxidative stress-induced apoptosis in inflammatory breast cancer cells. *Breast Cancer Res Treat.* 2012 Feb;132(1):109-19.

Gray ME, et al. Dual targeting of EGFR and ERBB2 pathways produces a synergistic effect on cancer cell proliferation and migration in vitro. *Vet Comp Oncol.* 2017 Sep;15(3):890-909.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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