
Product Data Sheet

Product Name: JBJ-04-125-02

Cat. No.: GC62632

Chemical Properties

Cas. No. 2060610-53-7

Formula $C_{29}H_{26}FN_5O_3S$ M.Wt 543.61

Solubility Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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

JBJ-04-125-02 is a potent, mutant-selective, allosteric and orally active EGFR inhibitor with an IC_{50} of 0.26 nM for EGFR L858R/T790M. JBJ-04-125-02 can inhibit cancer cell proliferation and EGFR L858R/T790M/C797S signaling. JBJ-04-125-02 has anti-tumor activities[1].

JBJ-04-125-02 (0-1000 nM; 72 hours; H1975 cells) treatment could inhibit cell proliferation of H1975 cells at low nanomolar concentrations[1]. JBJ-04-125-02 treatment also inhibits cell proliferation in Ba/F3 cells stably transfected with EGFR L858R, EGFR L858R/T790M, or EGFR L858R/T790M/C797S mutations[1]. The ability of JBJ-04-125-02 (0.01-10 μM) to inhibit EGFR phosphorylation using Ba/F3, H1975 and NIH-3T3 cells is examined. JBJ-04-125-02 demonstrates mutant selectivity by inhibiting mutant EGFR and downstream AKT and ERK1/2 phosphorylation[1].

JBJ-04-125-02 (50 mg/kg; oral gavage; once daily; for 15 weeks; EGFR L858R/T790M/C797S genetically engineered mice) treatment leads to marked tumor regressions within 4 weeks of treatment[1]. JBJ-04-125-02 exhibits a moderate half-life of 3 hours and a high area under curve of 728,577 min•ng/mL (AUC_{last}) following 3 mg/kg intravenous (i.v.) dose. A 20 mg/kg oral dose of JBJ-04-125-02

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

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achieves an average maximal plasma concentration of 1.1 $\mu\text{mol/L}$ with an oral bioavailability of 3%[1].

[1]. To C, et al. Single and Dual Targeting of Mutant EGFR with an Allosteric Inhibitor. Cancer Discov. 2019 Jul;9(7):926-943.

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