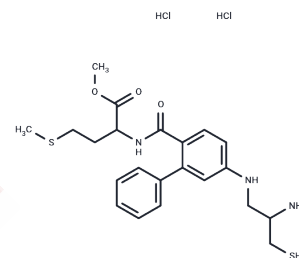


## FTI-277 hydrochloride

### Chemical Properties

CAS No. :	180977-34-8
Formula:	C <sub>22</sub> H <sub>30</sub> ClN <sub>3</sub> O <sub>3</sub> S <sub>2</sub>
Molecular Weight:	484.07
Storage:	Pure form: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



### Biological Description

Description	FTI-277 hydrochloride (FTI 277 HCl) is an effective and specific farnesyltransferase (FTase) inhibitor (IC <sub>50</sub> : 500 pM); this selectivity is about 100-fold than the closely related GGTase I.
Targets(IC <sub>50</sub> )	Apoptosis, Transferase, Ras
In vitro	In mouse models infected with Hepatitis B Virus (HBV) and Hepatitis D Virus (HDV), FTI-277 administered intraperitoneally at a dosage of 50 mg/kg/day effectively clears Hepatitis D viremia.
In vivo	In drug-resistant myeloma cells, FTI-277 inhibits cell growth and induces apoptosis. It mitigates the toxicity induced by methamphetamine in SH-SY5Y cells through effects on cell degeneration, activation, the c-Jun N-terminal kinase cascade, and the Ras activation process. FTI-277 inhibits Ras processing (IC <sub>50</sub> : 100 nM) without affecting the overall cellular prenylation of Rap1A. Additionally, FTI-277 increases post-irradiation apoptosis and enhances the radiation sensitivity of H-ras transformed rat embryo cells.
Kinase Assay	FTase and GGTase I Activity Assay: FTase and GGTase I activities from 60,000xg supernatants of human Burkitt lymphoma (Daudi) cells are assayed. Inhibition studies are performed by determining the ability of Ras CAAX peptidomimetics to inhibit the transfer of [ <sup>3</sup> H]farnesyl and [ <sup>3</sup> H]geranylgeranyl from [ <sup>3</sup> H]farnesylpyrophosphate and [ <sup>3</sup> H]geranylgeranylpyrophosphate to H-Ras-CVLS and H-Ras-CVLL, respectively.
Cell Research	Cells are seeded at 8000-14 000 cells/well in 96-well plates. To establish a dose-response to FTI-277, cells are incubated for 96 h in two-fold serial dilutions ranging from 3.75 times 10 <sup>-7</sup> M to 1 times 10 <sup>-5</sup> M. Following continuous drug exposure, 50 μL MTT dye is added. The insoluble formazan complex is solubilized with DMSO and absorbance measured at 540 nm. IC <sub>50</sub> s and 95% confidence intervals are calculated by regression analysis of the linear portion of the dose-response curve. (Only for Reference)

### Solubility Information

Solubility	Ethanol: 12 mg/mL (24.79 mM), Sonication is recommended. H <sub>2</sub> O: 14 mg/mL (28.92 mM), Sonication is recommended. DMSO: 145 mg/mL (299.54 mM), Sonication is recommended. ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (6.82 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0658 mL	10.3291 mL	20.6582 mL
5 mM	0.4132 mL	2.0658 mL	4.1316 mL
10 mM	0.2066 mL	1.0329 mL	2.0658 mL
50 mM	0.0413 mL	0.2066 mL	0.4132 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

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