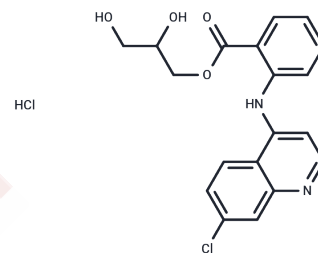


## Glafenine Hydrochloride

## Chemical Properties

CAS No. :	65513-72-6
Formula:	C <sub>19</sub> H <sub>17</sub> ClN <sub>2</sub> O <sub>4</sub> ·HCl
Molecular Weight:	409.26
Appearance:	no data available
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year



## Biological Description

Description	Glafenine Hydrochloride is an anti-inflammatory agent.
Targets(IC50)	ABC Transporter
In vitro	Glafenine enhances the surface expression of mutant Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) in baby hamster kidney (BHK) cells, achieving 40% of the expression levels seen in wild-type CFTR[2]. Additionally, Glafenine hydrochloride suppresses the proliferation and clonogenic capabilities of human aortic smooth muscle cells (haSMCs) and endothelial cells (ECs) in a dose-responsive manner, leading to a blockade at the G2/M phase of the cell cycle and a decline in the G1 phase. Moreover, it dose-dependently impairs the migratory capacity of haSMCs and decreases the level of the extracellular matrix protein tenascin[3].
Cell Research	Glafenine hydrochloride is added to the culture medium of the smooth muscle cells at three concentrations (10 $\mu$ M, 50 $\mu$ M, 100 $\mu$ M). After 4 days of treatment, cells are harvested and the absolute cell number is counted[3].

## Solubility Information

Solubility	DMSO: 60 mg/mL (146.61 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	2.4434 mL	12.2172 mL	24.4343 mL
5 mM	0.4887 mL	2.4434 mL	4.8869 mL
10 mM	0.2443 mL	1.2217 mL	2.4434 mL
50 mM	0.0489 mL	0.2443 mL	0.4887 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.

### Reference

Zhang Y, et al. Identification of inhibitors of ABCG2 by a bioluminescence imaging-based high-throughput assay. *Cancer Res.* 2009 Jul 15;69(14):5867-75.

Robert R, et al. Correction of the Delta phe508 cystic fibrosis transmembrane conductance regulator trafficking defect by the bioavailable compound glafenine. *Mol Pharmacol.* 2010 Jun;77(6):922-30.

Goldsmith, J., Cocchiaro, J., Rawls, J., & Jobin, C. (2012). Glafenine-induced intestinal injury in zebrafish is ameliorated by  $\mu$ -opioid signaling via enhancement of Atf6-dependent cellular stress responses. *Disease Models & Mechanisms*, 6(1), 146-159. doi: 10.1242/dmm.009852

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