

Surfen dihydrochloride

Chemical Properties

CAS No. : 5424-37-3

Formula: C₂₁H₂₂Cl₂N₆O

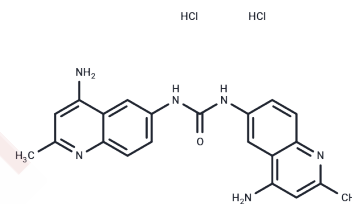
Molecular Weight: 445.35

Storage:

Keep away from moisture, Keep away from direct sunlight

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Surfen dihydrochloride (Aminoquinuride dihydrochloride) is a potent small molecule antagonist of heparin sulfate with antibacterial and antiviral activity, and inhibits anthrax lethal factor, coagulation factor X, and lethal factor. Surfen inhibits the anticoagulant activity of both normal and low-molecular-weight heparin and inhibits heparin sulfation and heparin cleavage enzyme degradation. Surfen inhibits the blockade of FGF2 binding and signaling mediated by heparin acetylsulfate. Surfen inhibits the blockade of acetylheparin sulfate-mediated FGF2 binding and signaling. Surfen inhibits SEVI and semen-mediated enhancement of HIV type 1 infection.
Targets(IC50)	FGFR, Antiviral, Microtubule Associated, Antibiotic, HSV, VEGFR

Solubility Information

Solubility	H ₂ O: 5 mg/mL (11.23 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	2.2454 mL	11.2271 mL	22.4542 mL
5 mM	0.4491 mL	2.2454 mL	4.4908 mL
10 mM	0.2245 mL	1.1227 mL	2.2454 mL
50 mM	0.0449 mL	0.2245 mL	0.4491 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

Schuksz M, et al. Surfen, a small molecule antagonist of heparan sulfate. *Proc Natl Acad Sci U S A*. 2008 Sep 2;105(35):13075-80.

Naini SMA, Yanicostas C, Hassan-Abdi R, Blondeel S, Bennis M, Weiss RJ, Tor Y, Esko JD, Soussi-Yanicostas N. Surfen and oxalyl surfen decrease tau hyperphosphorylation and mitigate neuron deficits in vivo in a zebrafish model of tauopathy. *Transl Neurodegener*. 2018 Mar 16;7:6. doi: 10.1186/s40035-018-0111-2. eCollection 2018. PubMed PMID: 29568517; PubMed Central PMCID: PMC5855975.

Warford JR, Lamport AC, Clements DR, Malone A, Kennedy BE, Kim Y, Gujar SA, Hoskin DW, Easton AS. Surfen, a proteoglycan binding agent, reduces inflammation but inhibits remyelination in murine models of Multiple Sclerosis. *Acta Neuropathol Commun*. 2018 Jan 4;6(1):4. doi: 10.1186/s40478-017-0506-9. PubMed PMID: 29301568; PubMed Central PMCID: PMC5755315.

Huang ML, Michalak AL, Fisher CJ, Christy M, Smith RAA, Godula K. Small Molecule Antagonist of Cell Surface Glycosaminoglycans Restricts Mouse Embryonic Stem Cells in a Pluripotent State. *Stem Cells*. 2018 Jan;36(1):45-54. doi: 10.1002/stem.2714. Epub 2017 Oct 27. PubMed PMID: 28984039.

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