

Certificate of Analysis

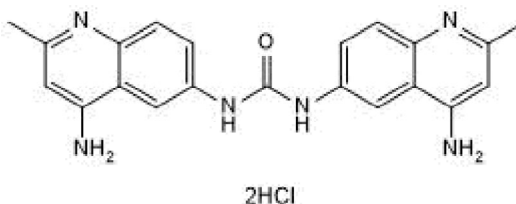
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Product Name: Surfen
CAS Number: 5424-37-3
IUPAC Name: *N,N'*-Bis(4-amino-2-methyl-6-quinoliny)urea dihydrochloride

Catalog No.: 6634 **Batch No.:** 1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₁H₂₀N₆O.2HCl.1½H₂O
Batch Molecular Weight: 472.37
Physical Appearance: Beige solid
Solubility: water to 20 mM
DMSO to 20 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows >99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	53.4	5.33	17.79
Found	53.26	5.45	17.71

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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CAS Number: 5424-37-3

IUPAC Name: *N,N'*-Bis(4-amino-2-methyl-6-quinoliny)urea dihydrochloride

Description:

Surfen is a heparan sulfate antagonist. Inhibits heparan sulfate-mediated cell attachment in vitro. Maintains hESCs in a pluripotent state by reversible inhibition of glycan-growth factor interactions.

Physical and Chemical Properties:

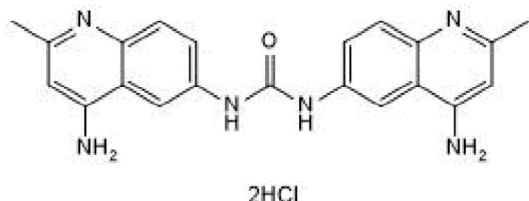
Batch Molecular Formula: C₂₁H₂₀N₆O₂·2HCl·1½H₂O

Batch Molecular Weight: 472.37

Physical Appearance: Beige solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 20 mM

DMSO to 20 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Huang *et al* (2018) Small molecule antagonist of cell surface glycosaminoglycans restricts mouse embryonic stem cells in a pluripotent state. *Stem Cells*. **36** 45. PMID: 28984039.

Schuksz *et al* (2008) Surfen, a small molecule antagonist of heparan sulfate. *Proc.Natl.Acad.Sci.USA* **105** 13074. PMID: 18725627.

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