

Certificate of Analysis

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Product Name: Rhosin hydrochloride

Catalog No.: 5003

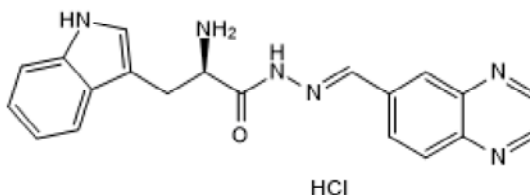
Batch No.: 4

CAS Number: 1281870-42-5

IUPAC Name: D-Tryptophan (2*E*)-2-(6-quinoxalinylmethylene)hydrazide hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₀ H ₁₈ N ₆ O.HCl.1½H ₂ O
Batch Molecular Weight:	421.88
Physical Appearance:	Brown solid
Solubility:	water to 20 mM with gentle warming DMSO to 100 mM
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 98.6% purity
Chiral HPLC:	Shows 100.0% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
Optical Rotation:	[α] _D = -35 (Concentration = 1, Solvent = DMSO)
Microanalysis:	

	Carbon	Hydrogen	Nitrogen	Chlorine
Theoretical	56.94	5.26	19.92	8.4
Found	56.05	4.98	19.51	9.94

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

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CAS Number: 1281870-42-5

IUPAC Name: D-Tryptophan (2E)-2-(6-quinoxalinylmethylene)hydrazide hydrochloride

Description:

Rhosin hydrochloride is a Rho GTPase inhibitor ($K_d = 354$ nM). Inhibits binding of RhoA to guanine nucleotide exchange factors (GEFs) including LARG, DBL, LBC, p115 RhoGEF and PDZ RhoGEF. Has no effect on the binding of Rac1 or Cdc42 to their respective GEFs. Suppresses RhoA/C-mediated breast cancer cell migration and invasion in vitro. Also induces neurite outgrowth in synergy with NGF.

Physical and Chemical Properties:

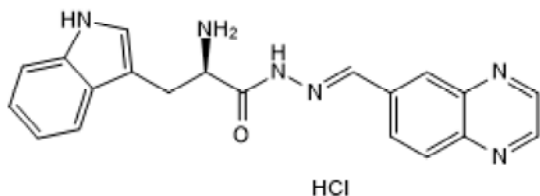
Batch Molecular Formula: $C_{20}H_{18}N_6O \cdot HCl \cdot 1\frac{1}{2}H_2O$

Batch Molecular Weight: 421.88

Physical Appearance: Brown solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

water to 20 mM with gentle warming

DMSO to 100 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. Our standard recommendations are:

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:

Shang et al (2013) Small-molecule inhibitors targeting G-protein-coupled Rho guanine nucleotide exchange factors. *Proc.Natl.Acad.Sci.U.S.A.* **110** 3155. PMID: 23382194.

Shang et al (2012) Rational design of small molecule inhibitors targeting RhoA subfamily Rho GTPases. *Chem.Biol.* **19** 699. PMID: 22726684.

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