



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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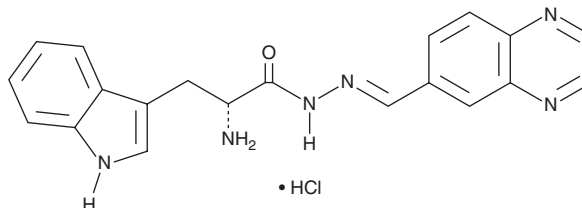
# PRODUCT INFORMATION



## Rhosin (hydrochloride)

Item No. 36415

**CAS Registry No.:** 1281870-42-5  
**Formal Name:** 2-(6-quinoxalinylmethylene)hydrazide,  
D-Tryptophan, monohydrochloride  
**Synonym:** G04  
**MF:** C<sub>20</sub>H<sub>18</sub>N<sub>6</sub>O • HCl  
**FW:** 394.9  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 219, 279 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Rhosin (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the rhosin (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Rhosin (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of rhosin (hydrochloride) in ethanol and DMSO is approximately 5 mg/ml and approximately 10 mg/ml in DMF.

### Description

Rhosin is an inhibitor of the protein-protein interaction between Rho and guanine nucleotide exchange factors (GEFs).<sup>1</sup> It inhibits RhoA activity when used at concentrations of 10 and 30 μM and selectively reduces the number and size of MCF-7 breast cancer cell mammospheres over MCF-10A non-cancerous cell mammospheres. It also inhibits migration and invasion of MCF-7 cells and human mammary epithelial cells expressing RhoC. Rhosin (30 μM) increases neurite outgrowth in PC12 cells. It prevents social defeat stress-induced hyperexcitability and increases spine density in nucleus accumbens dopamine 1 receptor medium spiny neurons (D1-MSNs) when administered post-social defeat stress in a mouse model of depression at a dose of 40 mg/kg.<sup>2</sup> It also prevents social defeat stress-induced social avoidance and reductions in sucrose preference in the same model.

### References

1. Shang, X., Marchioni, F., Sipes, N., *et al.* Rational design of small molecule inhibitors targeting RhoA subfamily Rho GTPases. *Chem. Biol.* **19(6)**, 699-710 (2012).
2. Francis, T.C., Gaynor, A., Chandra, R., *et al.* The selective RhoA inhibitor rhosin promotes stress resiliency through enhancing D1-medium spiny neuron plasticity and reducing hyperexcitability. *Biol. Psychiatry* **85(12)**, 1001-1010 (2019).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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