Product Data Sheet

Product Name: Rhosin
Cat. No.: GC33167

Chemical Properties

Cas. No.	1173671-63-0		
SMILES	O=C(N/N=C/C1=CC=C2N=CC=NC2=C1)[C@H](N)CC3=CNC4=C3C=CC=C4		
Formula	$C_{20}H_{18}N_6O$	M.Wt	358.4
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Rhosin		

Background

Rhosin is an inhibitor of the protein-protein interaction between Rho and guanine nucleotide exchange factors (GEFs).[1] It inhibits RhoA activity when used at concentrations of 10 and 30 ?M 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 ?M) 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.[2] It also prevents social defeat stress-induced social avoidance and reductions in sucrose preference in the same model.

1.Shang, X., Marchioni, F., Sipes, N., et al.Rational design of small molecule inhibitors targeting RhoA subfamily Rho GTPasesChem. 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

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hyperexcitabilityBiol. Psychiatry85(12)1001-1010(2019)

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