

Hakin-1

Chemical Properties

CAS No. :	346660-34-2
Formula:	C16H11N5O5S
Molecular Weight:	385.35
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	Hakin-1 is an inhibitor of the E3 ubiquitin ligase Hakai. It effectively blocks both overall ubiquitination mediated by Hakai and the specific ubiquitination of E-cadherin, thereby inhibiting the process of epithelial-mesenchymal transition (EMT). Hakin-1 can impede tumor progression and cancer metastasis and is utilized for research in colorectal cancer and other cancers.
Targets(IC50)	E1/E2/E3 Enzyme,Cadherin
In vitro	Hakin-1 exhibits dose-dependent inhibition of cell viability in HT-29, LoVo, MDCK, HaKai-MDCK (clone-4), and HaKai-MDCK (clone-11) cells, with IC50 values of 289.2, 159.1, 265.6, 176.3, and 165.4 μ M, respectively. Hakin-1 at concentrations of 50-100 μ M enhances the expression of E-cadherin and Cortactin while reducing Vimentin levels, without altering mRNA levels in HT-29 cells. Over 21-28 days, Hakin-1 (50-100 μ M) significantly diminishes tumor spheroid formation in HT-29 and HaKai-MDCK cells. Additionally, treatment with Hakin-1 (50-100 μ M for 48 hours) results in decreased cell invasion and migration in HT-29, LoVo, and HaKai-MDCK cells.
In vivo	Hakin-1 (5 mg/kg, intraperitoneal injection, 3 times a week, for 20 days) is effective in suppressing tumor growth in Hakai-MDCK tumor xenografts, which lack E-cadherin expression. This activity is associated with decreased expression of the mesenchymal marker N-cadherin and a reduction in pulmonary micrometastasis formation.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.595 mL	12.9752 mL	25.9504 mL
5 mM	0.519 mL	2.595 mL	5.1901 mL
10 mM	0.2595 mL	1.2975 mL	2.595 mL
50 mM	0.0519 mL	0.2595 mL	0.519 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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