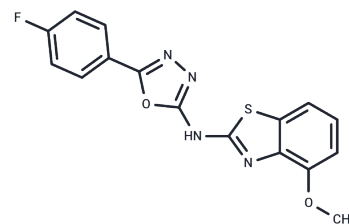


HIF-1/2 α -IN-2

Chemical Properties

CAS No. :	862974-22-9
Formula:	C ₁₆ H ₁₁ FN ₄ O ₂ S
Molecular Weight:	342.35
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	HIF-1/2 α -IN-2 is a potent inhibitor of HIF-1/2 α , which effectively reduces the levels of HIF-1/2 α . This compound elicits an iron starvation response by specifically targeting ISCA2, a key protein involved in Iron Sulfur Cluster Assembly 2. [1]
In vitro	HIF-1/2 α -IN-2 (compound #1) at concentrations ranging from 0 to 25 μ M over 24 hours primarily reduces HIF-2 α translation rather than its transcription, leading to decreased transcription of VEGFA and POU5F1, which are HIF-2 α target genes, without significantly affecting EPAS1 (HIF-2 α) [1]. At concentrations of 0 to 100 μ M, the same compound over 24 hours inhibits luciferase production in an Iron-Responsive Element (IRE) luciferase reporter driven by HIF-2 α with an IC ₅₀ value of 3.9 μ M, effectively blocking IRE-dependent HIF-2 α translation [1]. Additionally, HIF-1/2 α -IN-2 at 0, 10, and 50 μ M protects ISCA2 from Pronase-mediated degradation at 4 μ g/mL, and at 1.5 μ M over 24 hours, it causes accumulation of iron and metals in normoxia 786-0 cells by targeting ISCA2 [1]. This compound, at concentrations up to 100 μ M over 24 hours, inhibits ISCA2 and induces cell death via ferroptosis [1]. Western blot analysis with normoxia 786-0 cells and hypoxic ACHN cells exposed to 0, 1, 5, 10, and 25 μ M for 24 hours reveals a decrease in the protein levels of HIF-2 α , FTH1, ISCA2, and an increase in IRP2 protein levels at higher concentrations over 10 μ M in 786-0 cells, and a decrease in HIF-2 α and FTH1 levels at 1 μ M in ACHN cells [1]. Cell viability assays show that HIF-1/2 α -IN-2 inhibits 786-0 cell viability by inducing ferroptosis, with an IC ₅₀ value of 22.0 μ M [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.921 mL	14.6049 mL	29.2099 mL
5 mM	0.5842 mL	2.921 mL	5.842 mL
10 mM	0.2921 mL	1.4605 mL	2.921 mL
50 mM	0.0584 mL	0.2921 mL	0.5842 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

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