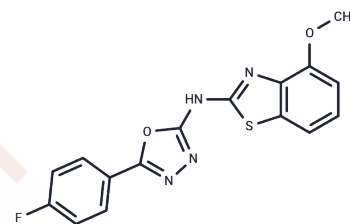


HIF-1/2 $\alpha$ -IN-2

## Chemical Properties

CAS No. : 862974-22-9  
 Formula: C<sub>16</sub>H<sub>11</sub>FN<sub>4</sub>O<sub>2</sub>S  
 Molecular Weight: 342.35  
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
 Actual storage temperature shall be subject to the COA.



## Biological Description

Description	HIF-1/2 $\alpha$ -IN-2 is a potent inhibitor of HIF-1/2 $\alpha$ that effectively reduces HIF-1/2 $\alpha$ levels and elicits an iron starvation response by specifically targeting ISCA2, a key protein in Iron-Sulfur Cluster Assembly 2. [1]
Targets(IC50)	Others,HIF/HIF Prolyl-Hydroxylase
In vitro	HIF-1/2 $\alpha$ -IN-2 (compound #1), at concentrations of 0 to 25 $\mu$ M over 24 hours, primarily reduces HIF-2 $\alpha$ translation rather than transcription, leading to decreased VEGFA and POU5F1 transcription without significantly affecting EPAS1 (HIF-2 $\alpha$ ) [1]. At 0 to 100 $\mu$ M, the same compound inhibits luciferase production in an Iron-Responsive Element (IRE) luciferase reporter driven by HIF-2 $\alpha$ , with an IC 50 value of 3.9 $\mu$ M, thus effectively blocking IRE-dependent HIF-2 $\alpha$ translation [1]. Additionally, at 0, 10, and 50 $\mu$ M, HIF-1/2 $\alpha$ -IN-2 protects ISCA2 from Pronase-mediated degradation at 4 $\mu$ g/mL, and at 1.5 $\mu$ M, it causes accumulation of iron and metals in normoxia 786-0 cells by targeting ISCA2 [1]. At concentrations up to 100 $\mu$ M over 24 hours, it inhibits ISCA2 and induces ferroptosis [1]. Western blot analysis with normoxia 786-0 cells and hypoxic ACHN cells, exposed to 0, 1, 5, 10, and 25 $\mu$ M for 24 hours, reveals decreased protein levels of HIF-2 $\alpha$ , FTH1, ISCA2, and increased IRP2 protein levels at concentrations over 10 $\mu$ M in 786-0 cells, and decreased HIF-2 $\alpha$ and FTH1 levels at 1 $\mu$ M in ACHN cells [1]. Cell viability assays indicate that HIF-1/2 $\alpha$ -IN-2 inhibits 786-0 cell viability by inducing ferroptosis, with an IC 50 value of 22.0 $\mu$ M [1].

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
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

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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.

#### Reference

Green YS, et al. ISCA2 inhibition decreases HIF and induces ferroptosis in clear cell renal carcinoma. *Oncogene*. 2022 Oct;41(42):4709-4723.

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