
Product Data Sheet

Product Name: HIF-PHD-IN-1

Cat. No.: GC67941

Chemical Properties

Cas. No. 1567657-46-8

Formula $C_{17}H_{12}Cl_2N_6O_3$

M.Wt 419.22

Solubility DMSO : 100 mg/mL (238.54 mM; Need ultrasonic)

Storage 4°C, away from moisture and light

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C 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 **Background**IC50: 54 nM (hHIF-PHD2)^[1]

HIF-PHD-IN-1 is an orally active inhibitor of **hypoxia-inducible factor prolyl hydroxylase domain (HIF-PHD)**, with an **IC₅₀** of 54 nM for **hHIF-PHD2**. HIF-PHD-IN-1 is promising therapeutic agents for renal anemia^[1].

HIF-PHD-IN-1 (compound 19) (0.5-2 mg/kg; p. o. once daily for 4 weeks) improves hemoglobin levels in anemic rats^[1].

HIF-PHD-IN-1 (10 mg/kg; single p.o.) increases serum erythropoietin (EPO) concentration at 8 h after administration in SD rats^[1].

HIF-PHD-IN-1 (1 mg/kg; p.o.) shows good bioavailability (F=77%) in male SD rats^[1].

Animal Model: Male SD Rats excising 1/6 of their kidneys^[1]

Dosage: 0.5, 1, 2 mg/kg

Administration: P.o. once daily for 4 weeks

Caution: Product has not been fully validated for medical applications. For research use only.

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Result: Improved blood hemoglobin levels starting at weeks 2 and 1 in the groups receiving 1 and 2 (mg/kg)/day, respectively.

Animal Model: Male SD Rats^[1]

Dosage: 1 mg/kg (Pharmacokinetic Analysis)

Administration: Single p.o. or i.v.

Result: C_{max} =1839 ng/mL (p.o.); C_{max} =12357ng/mL (i.v.);
F=77%.

[1]. Goi T, et, al. Pyrazolo[4,3- d]pyrimidine Derivatives as a Novel Hypoxia-Inducible Factor Prolyl Hydroxylase Domain Inhibitor for the Treatment of Anemia. ACS Med Chem Lett. 2020 Jun 4; 11(7): 1416-1420.

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