

Product Data Sheet

Adaptaquin

Cat. No.: HY-101449 CAS No.: 385786-48-1 Molecular Formula: $C_{21}H_{16}CIN_3O_2$ Molecular Weight: 377.82

Target: HIF/HIF Prolyl-Hydroxylase

Pathway: Metabolic Enzyme/Protease

Storage: Powder -20°C 3 years

 4°C 2 years In solvent -80°C 6 months

-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 100 mg/mL (264.68 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent Mass Concentration | 1 mg | 5 mg | 10 mg |
|------------------------------|-------------------------------|-----------|------------|------------|
| | 1 mM | 2.6468 mL | 13.2338 mL | 26.4676 mL |
| | 5 mM | 0.5294 mL | 2.6468 mL | 5.2935 mL |
| | 10 mM | 0.2647 mL | 1.3234 mL | 2.6468 mL |

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

| Description | Adaptaquin is an inhibitor of hypoxia-inducible factor prolyl hydroxylase 2 (HIF-PHD2), with an IC ₅₀ of 2 μ M. Adaptaquin can inhibit lipid peroxidation and maintain mitochondrial function ^{[1][2]} . |
|---------------------------|--|
| IC ₅₀ & Target | IC50: 2 μM (HIF-PHD2) ^[1] |

REFERENCES

[1]. Smirnova NA, et, al. Utilization of an in vivo reporter for high throughput identification of branched small molecule regulators of hypoxic adaptation. Chem Biol. 2010 Apr 23;17(4):380-91.

[2]. Neitemeier S, et, al. Inhibition of HIF-prolyl-4-hydroxylases prevents mitochondrial impairment and cell death in a model of neuronal oxytosis. Cell Death Dis. 2016 May 5;7(5):e2214.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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