

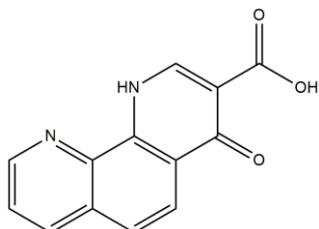
1,4-DPCA

03/21

ALTERNATE NAMES: 4-oxo-1H-1,10-phenanthroline-3-carboxylic acid; 4-Oxo-1,4-dihydro-1,10-phenanthroline-3-carboxylic acid; 3-Acetyl-1H-[1,10]phenanthroline-4-one; 4-Hydroxy-1,10-phenanthroline-3-carboxylic acid

CATALOG #: B3123-5 5 mg
B3123-25 25 mg

STRUCTURE:



MOLECULAR FORMULA: C₁₃H₈N₂O₃

MOLECULAR WEIGHT: 240.21

CAS NUMBER: 331830-20-7, 53946-49-9

APPEARANCE: Light brown powder

PURITY: ≥ 98%

SOLUBILITY: ~3 mg/ml in DMSO or DMF

DESCRIPTION: 1,4-DPCA is a competitive inhibitor of prolyl 4-hydroxylase. It inhibits isolated chick prolyl 4-hydroxylase and procollagen synthesis in human foreskin fibroblasts with an IC₅₀ value of 3.6 and 2.4 μM, respectively. It also inhibits factor inhibiting HIF (FIH) with an IC₅₀ of 60 μM. Inhibitors of prolyl 4-hydroxylase maybe useful in controlling excess collagen deposition in pathological fibrosis.

STORAGE TEMPERATURE: -20 °C

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. Banerji, B., Conejo-Garcia, A., McNeill, L.A., et al. The inhibition of factor inhibiting hypoxia-inducible factor (FIH) by β-oxocarboxylic acids. *Chemical Communications* 5438-5440 (2005).
2. Franklin, T.J., Morris, W.P., Edwards, P.N., et al. Inhibition of prolyl 4-hydroxylase in vitro and in vivo by members of a novel series of phenanthrolineones. *Biochemistry Journal* 353, 333-338 (2001)

RELATED PRODUCTS:

DMOG (Cat. No. 2216)
 Pirfenidone (Cat. No. B2660)
 Aztreonam (Cat. No. B2696)
 Cilofexor (Cat. No. B2604)
 VX-661 (Cat. No. B1268)

DISCLAIMER: *FOR RESEARCH USE ONLY! Not to be used on humans.*