Product Data Sheet

Product Name: Collagen proline hydroxylase inhibitor
Cat. No.: GC11075

Chemical Properties

Cas. No.	223666-07-7		
Chemical Name	N-ethyl-8-nitro-7-oxo-N-propyl-7,10-dihydro-1,10-phenanthroline-3-carboxamide		
SMILES	CCCN(C(C1=CN=C2C(C=CC3=C2NC=C([N+]([O-])=O)C3=O)=C1)=O)CC		
Formula	$C_{18}H_{18}N_4O_4$	M.Wt	354.36
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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: N/A

Collagen proline hydroxylase inhibitor is one member of the collagen proline hydroxylase inhibitor family, which are used as antifibroproliferative agents. Proline hydroxylase is a multiple function oxygenase catalyzing specific prolyl residues in the collagen peptide precursor. Proline hydroxylase has been known as one of the critical enzymes in the biosynthesis of collagen and its activity is enhanced in tissues of various pathological fibrosis. Thus, the specific inhibitor of proline hydroxylase could have clinical application in fibrotic diseases treatment.

In vitro: One of collagen proline hydroxylase inhibitors, P-1894B, was found to in vitro inhibit proline hydroxylase and had been proposed as a topical treatment for dermal fibrosis. P-1894B was observed to be with similar activities on one fibroblast line from a patient with infection and two fibroblast lines from normal human skin. 72-hour drug exposure on growing cells showed both time- and dose-dependent inhibition of

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proliferation. A similar result was also observed in the epithelial cell line NCTC 2544 [1].

In vivo: So far, collagen proline hydroxylase inhibitor has not been applied to animal in vivo study.

Clinical trial: Currently, no clinical study is available.

Reference:
[1] Priestley GC. Toxicity of the anthraquinone glycoside P-1894B for human skin fibroblasts. Br J Dermatol.1987 Jul;117(1):67-72.