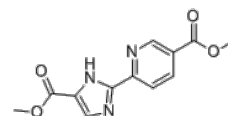


**Product Name** : Diethyl-pythiDC  
**Cat. No.** : PC-72921  
**CAS No.** : 1821370-70-0  
**Molecular Formula** : C<sub>14</sub>H<sub>14</sub>N<sub>2</sub>O<sub>4</sub>S  
**Molecular Weight** : 306.336  
**Target** : Other Targets  
**Solubility** :



## Biological Activity

Diethyl-pythiDC (diethyl pythiDC) is a selective, small molecule inhibitor of **P4HA1**, inhibits collagen biosynthesis in breast cancer cells.

diethyl-pythiDC decreased levels of AGO2 in CRC cells, also reduced the malignant phenotypes of CRC cells, including cell proliferation, colony formation, invasion and spheroid-forming capacity.

diethyl-pythiDC (100 mg/kg) reduced growth in a CRC PDX model through the P4HA1 downstream targets, MMP1 and AGO2.

The prolyl-4-hydroxylase enzymes prolyl 4-hydroxylase, alpha polypeptide I (P4HA1), P4HA2, and P4HB are necessary for collagen synthesis and deposition; matrix metalloproteinases degrade collagen, P4HA1 catalyzes the formation of 4-hydroxyproline from proline residues, a process that is essential for the proper folding of collagen polypeptide chains into stable triple-helical molecules.

## References

James D Vasta, et al. ACS Chem Biol. 2016 Jan 15;11(1):193-9.

Sumit Agarwal, et al. Transl Oncol. 2020 Apr;13(4):100754.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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