

Product Data Sheet

Product Name: Endosidin 5

Cat. No.: GC92147

Chemical Properties

Cas. No. 364361-68-2

Chemical Name 2-(3,7-dimethyl-2-quinolinyl)hydrazone 1H-indole-3-carboxaldehyde

SMILES CCCCC[C@@H](O)/C=C/[C@H]([C@H]1CCCCCCC(O)=O)C=CC1=O

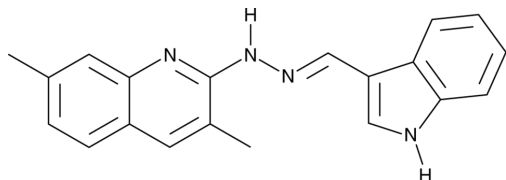
Formula $C_{20}H_{18}N_4$ M.Wt 314.4

Solubility Acetonitrile: Slightly soluble: 0.1-1 mg/ml, DMSO: Sparingly soluble: 1-10 mg/ml Storage -20°C

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

Endosidin5 (ES5) is an inhibitor of endosomal recycling and dCTP pyrophosphatase 1 (dCTPase 1; $IC_{50} = 1 \mu M$ for the human enzyme).^{1,2} It induces trafficking of endocytosed plasma membrane to the vacuole in *Arabidopsis* cells and inhibits the recycling of plasma membrane proteins in HeLa cells.¹ ES5 inhibits membrane remodeling mediated by annexin A6 in HEK293T cell lysates ($EC_{50} = \sim 3 \mu M$) and enhances the delivery of mRNA via lipid nanoparticles (LNPs) in HEK293T cells in an annexin A6-dependent manner.³

References:

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

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- [1]. Drakakaki, G., Robert, S., Szatmari, A.-M., et al. Clusters of bioactive compounds target dynamic endomembrane networks in vivo. *Proc. Natl. Acad. Sci. USA* 108(43):17850-17855 (2011).
- [2]. Llona-Minguez, S., Häggblad, M., Martens, U., et al. Diverse heterocyclic scaffolds as dCTP pyrophosphatase 1 inhibitors. Part 1: Triazoles, triazolopyrimidines, triazinoindoles, quinoline hydrazones and arylpiperazines. *Bioorg. Med. Chem. Lett.* 27(16):3897-3904 (2017).
- [3]. Shin, J., Douglas, C.J., Zhang, S., et al. Targeting recycling endosomes to potentiate mRNA lipid nanoparticles. *Nano Lett.* 24(17):5104-5109 (2024).

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