

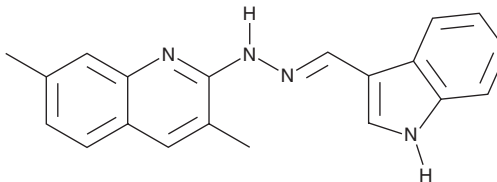
# PRODUCT INFORMATION



## Endosidin 5

Item No. 41328

**CAS Registry No.:** 364361-68-2  
**Formal Name:** 2-((1H-indol-3-yl)methylene)hydrazineyl)-3,7-dimethylquinoline  
**Synonym:** ES5  
**MF:** C<sub>20</sub>H<sub>18</sub>N<sub>4</sub>  
**FW:** 314.4  
**Purity:** ≥98%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Endosidin 5 (ES5) is supplied as a solid. A stock solution may be made by dissolving the ES5 in the solvent of choice, which should be purged with an inert gas. ES5 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile.

### Description

ES5 is an inhibitor of endosomal recycling and dCTP pyrophosphatase 1 (dCTPase 1; IC<sub>50</sub> = 1 μM for the human enzyme).<sup>1,2</sup> It induces trafficking of endocytosed plasma membrane to the vacuole in *Arabidopsis* cells and inhibits the recycling of plasma membrane proteins in HeLa cells.<sup>1</sup> ES5 inhibits membrane remodeling mediated by annexin A6 in HEK293T cell lysates (EC<sub>50</sub> = ~3 μM) and enhances the delivery of mRNA via lipid nanoparticles (LNPs) in HEK293T cells in an annexin A6-dependent manner.<sup>3</sup>

### References

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. Llonca-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).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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