

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

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# Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION



## Lin28 Inhibitor LI71

Item No. 41039

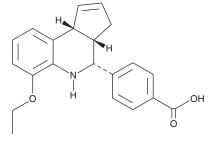
CAS Registry No.: 1357248-83-9

Formal Name: 4-[(3aS,4R,9bR)-6-ethoxy-3a,4,5,9b-

tetrahydro-3H-cyclopenta[c]quinolin-4-

yl]-benzoic acid

MF:  $C_{21}H_{21}NO_{3}$ 335.4 FW: ≥95% **Purity:** 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**

Lin28 inhibitor LI71 is supplied as a solid. A stock solution may be made by dissolving the Lin28 inhibitor LI71 in the solvent of choice, which should be purged with an inert gas. Lin28 inhibitor LI71 is sparingly soluble (1-10 mg/ml) in DMSO.

#### Description

Lin28 inhibitor LI71 is an inhibitor of the protein-microRNA precursor interaction between the RNAbinding protein Lin28 and let-7.1 It binds to the cold-shock domain of Lin28 to inhibit let-7 binding and inhibits Lin28-mediated let-7 oligouridylation (IC $_{50}$  = ~27  $\mu$ M). Lin28 inhibitor LI71 (100  $\mu$ M) increases the levels of mature let-7b, -7c, -7f, -7g, and -7i as well as the levels of miR-16, which is not regulated by Lin28, in K562 leukemia cells but not the levels of miR-93, miR-99a, and miR-151, which are also not regulated by Lin28. It increases the levels of mature let-7a-i without increasing miR-16 levels in Lin28a/Lin28b doubleknockout mouse embryonic stem cells (mESCs) expressing exogenous wild-type Lin28a. Lin28 inhibitor LI71 also inhibits the protein-protein interaction between P. falciparum cold-shock protein (PfCoSP) and PfDNA or Pfα/β-tubulin.<sup>2</sup> It is active against P. falciparum strain 3D7 and the chloroquine-resistant strain RKL-9 ( $IC_{50}$ s = 1.35 and 6.3 nM, respectively).

#### References

- 1. Wang, L., Rowe, R.G., Jaimes, A., et al. Small-molecule inhibitors disrupt let-7 oligouridylation and release the selective blockade of let-7 processing by LIN28. Cell Rep. 23(10), 3091-3101 (2018).
- 2. Behl, A., Shoaib, R., De Leon, F., et al. Targeting an essential Plasmodium cold shock protein to block growth and transmission of malaria parasite. iScience 26(5), 106637 (2023).

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

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.

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