

Store at
-20C
#30690**INK128**

5 mg



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For Research Use Only. Not for Use in Diagnostic Procedures.

Background

INK128, also known as MLN0128, is a second-generation active-site mTOR inhibitor (asTORi). Treating cells with INK128 leads to the dephosphorylation of mTOR downstream targets including p70 S6 kinase and 4E-BP1 (1,2). Research has proven that INK128 is an effective mTOR inhibitor because it targets both the mTORC1 and mTORC2 complexes at a high potency ($K_i = 1.4\text{nM}$) (1). Studies have shown that INK128 has anti-leukemic effects and can induce apoptosis at higher concentrations (3).

Molecular Formula

$C_{15}H_{15}N_7O$

Molecular Weight

309.3 g/mol

Purity

>98%

CAS

1224844-38-5

Solubility

Soluble in DMSO at 25 mg/ml.

Storage

Store lyophilized at -20°C , desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°C and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use

INK128 is supplied as a lyophilized powder. For a 15 mM stock, reconstitute 5 mg of powder in 1.07 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References

1. Hsieh, A.C. et al. (2012) *Nature* 485, 55-61.
2. Vilar, E. et al. (2011) *Mol Cancer Ther* 10, 395-403.
3. Zeng, Z. et al. (2016) *Oncotarget* 7, 55083-55097.

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