

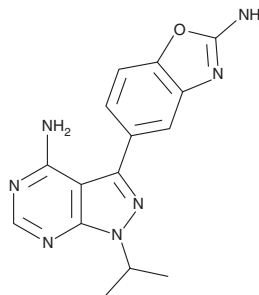
PRODUCT INFORMATION



INK128

Item No. 11811

CAS Registry No.: 1224844-38-5
Formal Name: 3-(2-amino-5-benzoxazolyl)-1-(1-methylethyl)-1H-pyrazolo[3,4-d]pyrimidin-4-amine
Synonym: MLN0128
MF: C₁₅H₁₅N₇O
FW: 309.3
Purity: ≥98%
UV/Vis.: λ_{max}: 205, 243, 292 nm
Supplied as: A crystalline 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

INK128 is supplied as a crystalline solid. A stock solution may be made by dissolving the INK128 in the solvent of choice, which should be purged with an inert gas. INK128 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of INK128 in these solvents is approximately 2 and 1 mg/ml, respectively.

INK128 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, INK128 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. INK128 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

INK128 is an inhibitor of TORC1/2, acting as an ATP-dependent inhibitor of mTOR kinase (IC₅₀ = 1 nM).¹⁻³ It blocks the phosphorylation of downstream substrates of both TORC1 and TORC2.³ INK128 interferes with the growth of cell lines which are resistant to rapamycin and pan-PI3K inhibitors.^{2,4} Moreover, daily, oral administration of INK128 inhibits angiogenesis and tumor growth in several xenograft models.² The effects of INK128 on gene expression also reduce invasion and metastasis.⁵

References

1. Liu, Q. mTOR mediated anti-cancer drug discovery. *Drug Discov. Today Ther. Strateg.* **6**(2), 47-55 (2009).
2. Jessen, K., Wang, S., Kessler, L., et al. Abstract B148: INK128 is a potent and selective TORC1/2 inhibitor with broad oral antitumor activity. *Mol. Cancer Ther.* **8**(12), B148 (2009).
3. Schenone, S., Brullo, C., Musumeci, F., et al. ATP-competitive inhibitors of mTOR: An update. *Curr. Med. Chem.* **18**(20), 2995-3014 (2011).
4. Maiso, P., Liu, Y., Morgan, B., et al. Defining the role of TORC1/2 in multiple myeloma. *Blood* **118**(26), 6860-6870 (2011).
5. Hsieh, A. C., Liu, Y., Edlind, M. P., et al. The translational landscape of mTOR signalling steers cancer initiation and metastasis. *Nature* **485**(7396), 55-61 (2012).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/19/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM