

PRODUCT INFORMATION

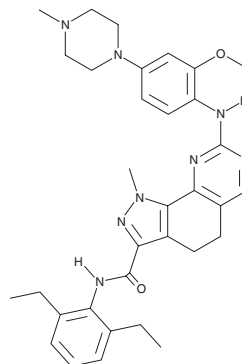


Mps1/TTK Inhibitor

Item No. 25554

CAS Registry No.: 1202055-39-7
Formal Name: N-(2,6-diethylphenyl)-4,5-dihydro-8-[[2-methoxy-4-(4-methyl-1-piperazinyl)phenyl]amino]-1-methyl-1H-pyrazolo[4,3-h]quinazoline-3-carboxamide

MF: C₃₃H₄₀N₈O₂
FW: 580.7
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

Mps1/TTK inhibitor is supplied as a solid. A stock solution may be made by dissolving the Mps1/TTK inhibitor in water. Mps1/TTK inhibitor is slightly soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

Mps1/TTK inhibitor is an inhibitor of monopolar spindle 1 (Mps1/TTK; IC₅₀ = 5.8 nM), a kinase involved in mitotic spindle checkpoint signaling that is overexpressed in certain cancerous tumors.^{1,2} It inhibits Mps1 phosphorylation of kinetochore scaffold 1 (KNL1) and increases the rate of mitosis and the number of cells entering anaphase within 15 minutes, indicating Mps1 checkpoint inhibition, when used at a concentration of 100 nM.¹ Mps1/TTK inhibitor (50 and 100 nM) increases the number of missegregated chromosomes, with an increased number of errors at 100 nM compared with 50 nM. It also inhibits colony formation of DLD1, HCT116, and U2OS cells (IC₅₀s = 24.6, 20.1, and 20.6 nM, respectively).

References

1. Koch, A., Maia, A., Janssen, A., *et al.* Molecular basis underlying resistance to Mps1/TTK inhibitors. *Oncogene* **35**(19), 2518-2528 (2016).
2. Alimova, I., Ng, J., Harris, P., *et al.* MPS1 kinase as a potential therapeutic target in medulloblastoma. *Oncol. Rep.* **36**(5), 2633-2640 (2016).

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, 12/16/2022

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