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Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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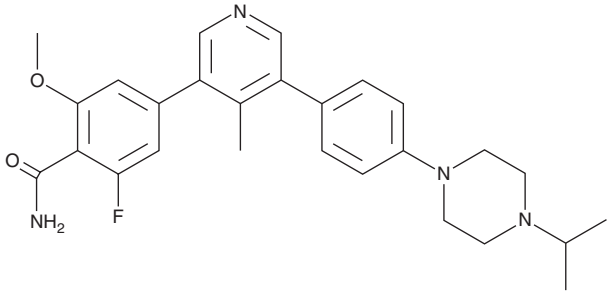
PRODUCT INFORMATION

M4K2234

Item No. 41169



CAS Registry No.:	2421141-51-5
Formal Name:	2-fluoro-6-methoxy-4-[4-methyl-5-[4-[4-(1-methylethyl)-1-piperazinyl] phenyl]-3-pyridinyl]-benzamide
MF:	$C_{27}H_{31}FN_4O_2$
FW:	462.6
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

M4K2234 is supplied as a solid. A stock solution may be made by dissolving the M4K2234 in the solvent of choice, which should be purged with an inert gas. M4K2234 is slightly soluble (0.1-1 mg/ml) in acetonitrile and water and sparingly soluble (1-10 mg/ml) in DMSO.

Description

M4K2234 is an inhibitor of activin receptor-like kinase 1 (ALK1) and ALK2 (IC_{50}s = 7 and 14 nM, respectively).[1] M4K2234 is selective for ALK1 and ALK2 over ALK3, -4, -5, and -6 (IC_{50}s = 168, 1,660, 1,950, and 88 nM, respectively), as well as 30 additional kinases at 1 µM, but does inhibit TRAF2- and NCK-interacting kinase (TNIK; IC_{50} = 41 nM). M4K2234 also inhibits ALK2 containing the gain-of-function mutations $ALK2^{G328V}$, $ALK2^{R206H}$, and $ALK2^{R258G}$ (IC_{50}s = 3, 6, and 6 nM, respectively).[1,2] It reduces BMP7-induced increases in the phosphorylation of SMAD1/5/8 *in vitro* when used at concentrations ranging from 100 to 10,000 nM and reduces the growth of SU-DIPG-XXI and HSJD-DIPG-007 cells derived from patients with diffuse intrinsic pontine gliomas (DIPGs) and containing the respective mutations $ALK2^{G328W}$ and $ALK2^{R206H}$ (GI_{50}s = 0.04 and 4.3 µM, respectively).[2] See the Structural Genomics Consortium (SGC) website for more information.

References

1. M4K2234 chemical probe for ALK1 and ALK2 protein kinases. https://www.thesgc.org/chemical-probes/m4k2234 (2024).
2. Ensan, D., Smil, D., Zepeda-Velázquez, C.A., *et al.* Targeting ALK2: An open science approach to developing therapeutics for the treatment of diffuse intrinsic pontine glioma. *J. Med. Chem.* **63(9)**, 4978-4996 (2020).

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