

PRODUCT INFORMATION



PDGFR TKI III

Item No. 14925

CAS Registry No.: 205254-94-0

Formal Name: 4-(6,7-dimethoxy-4-quinazoliny)-N-(4-phenoxyphenyl)-1-piperazinecarboxamide

Synonyms: PDGFR Tyrosine Kinase Inhibitor III, Platelet-derived Growth Factor Receptor TKI III, Platelet-derived Growth Factor Receptor Tyrosine Kinase Inhibitor III

MF: $C_{27}H_{27}N_5O_4$

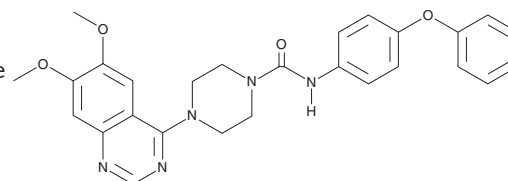
FW: 485.5

Purity: $\geq 98\%$

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

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

Description

PDGFR TKI III is an inhibitor of PDGFR α and PDGFR β (IC_{50} s = 0.05 and 0.13 μM , respectively).¹ It is selective for PDGFR α and PDGFR β over FGFR, EGFR, PKA, and PKC (IC_{50} s = 29.7, >30, >30, and >30 μM , respectively) but does inhibit c-Kit and FMS-related tyrosine kinase 3 (FLT3; IC_{50} s = 0.05 and 0.23 μM , respectively). PDGFR TKI III inhibits PDGF homodimer-induced proliferation of pig aorta smooth muscle cells (IC_{50} = 0.25 μM). It inhibits the migration of primary mouse dorsal aorta mesenchymal stem cells (DA-MSCs) induced by embryonic mouse blood when used at a concentration of 2 μM .²

References

1. Matsuno, K., Ichimura, M., Nakajima, T., *et al.* Potent and selective inhibitors of platelet-derived growth factor receptor phosphorylation. 1. Synthesis, structure-activity relationship, and biological effects of a new class of quinazoline derivatives. *J. Med. Chem.* **45**(14), 3057-3066 (2002).
2. Yan, X.-L., Lan, Y., Wang, X.-Y., *et al.* Migration of dorsal aorta mesenchymal stem cells induced by mouse embryonic circulation. *Dev. Dyn.* **240**(1), 65-74 (2011).

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.

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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