

PRODUCT INFORMATION

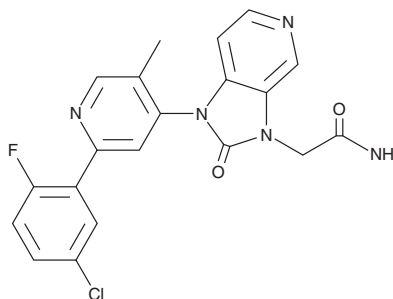


TP-008

Item No. 41367

CAS Registry No.: 1976038-41-1
Formal Name: 1-[2-(5-chloro-2-fluorophenyl)-5-methyl-4-pyridinyl]-1,2-dihydro-2-oxo-3H-imidazo[4,5-c]pyridine-3-acetamide

MF: C₂₀H₁₅ClFN₅O₂
FW: 411.8
Purity: ≥95%
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

TP-008 is supplied as a solid. A stock solution may be made by dissolving the TP-008 in the solvent of choice, which should be purged with an inert gas. TP-008 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

TP-008 is an inhibitor of activin receptor-like kinase 4 (ALK4) and ALK5, also known as TGF- β receptor type 1 (TGF- β RI; IC₅₀s = 113 and 343 nM, respectively).¹ It is selective for ALK4 and ALK5 over a panel of 467 kinases at 1 μ M. TP-008 inhibits ALK4 or ALK5 signaling in a reporter assay using HEK293 cells expressing ALK4 or ALK5 (IC₅₀s = 526 and 245 nM, respectively). It inhibits TGF- β 1-induced increases in the levels of phosphorylated Smad2 in C2C12 mouse skeletal muscle myoblasts when used at concentrations of 1 or 10 μ M. *In vivo*, TP-008 (150 or 500 mg/kg per day) induces valvular interstitial cell proliferation, neutrophil infiltration, hemorrhage, and fibrin deposition in rat heart valves.²

References

1. Hanke, T., Wong, J.F., Berger, B.-T., *et al.* A highly selective chemical probe for activin receptor-like kinases ALK4 and ALK5. *ACS Chem. Biol.* **15**(4), 862-870 (2020).
2. Wang, H., Lawson, J.D., Scora, N., *et al.* Design, synthesis and optimization of novel Alk5 (activin-like kinase 5) inhibitors. *Bioorg. Med. Chem. Lett.* **26**(17), 4334-4339 (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.

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