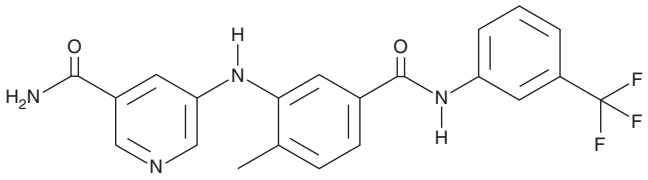
PRODUCT INFORMATION

ALW-II-49-7

Item No. 46617

CAS Registry No.: 1135219-23-6
Formal Name: 5-[[2-methyl-5-[[[3-(trifluoromethyl)phenyl]amino]carbonyl]phenyl]amino]-3-pyridinecarboxamide
MF: $C_{21}H_{17}F_3N_4O_2$
FW: 414.4
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

ALW-II-49-7 is supplied as a solid. A stock solution may be made by dissolving the ALW-II-49-7 in the solvent of choice, which should be purged with an inert gas. ALW-II-49-7 is soluble (≥10 mg/ml) in DMSO. ALW-II-49-7 is sparingly soluble (1-10 mg/ml) in ethanol.

Description

ALW-II-49-7 is an inhibitor of ephrin type-B receptor 2 (EphB2).[1] It inhibits EphB2 in tyrosine kinase-transformed Ba/F3 cells (EC_{50} = 40 nM). It is selective for EphB2 over EphA3, FLT3, Kit, and FMS (EC_{50}s = 12.7, 10, 0.2, and 3 µM, respectively) and 12 additional kinases in kinase-transformed Ba/F3 cells (EC_{50}s = 10 µM for all), but there is variability between its binding affinity and biochemical inhibition. It reduces ephrin-B2-induced autophosphorylation of EphB2 in U87 glioblastoma cells at 1 and 10 µM. ALW-II-49-7 normalizes circadian patterns of mRNA levels of *Tim* and *Per2*, genes involved in liver metastasis-associated circadian rhythm disorder (CRD), in mouse liver metastasis tissues cultured *ex vivo*.[2] It also reduces tumor weight in a patient-derived xenograft (PDX) mouse model using CRD^+ liver metastasis tissues but not in a PDX model using CRD- tissues at 20 mg/kg.

References

1. Choi, Y., Syeda, F., Walker, J.R., *et al.* Discovery and structural analysis of Eph receptor tyrosine kinase inhibitors. *Bioorg. Med. Chem. Lett.* **19(15)**, 4467-4470 (2009).
2. Li, Q., Lin, Y., Ni, B., *et al.* Circadian system disorder induced by aberrantly activated EFNB2-EPHB2 axis leads to facilitated liver metastasis in gastric cancer. *Cell. Oncol.* **47(6)**, 2113-2134 (2024).

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.

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