

Product Specification Sheet

Product Name: NVP-LGK974

Catalog Number: C6545

Technical information:

Chemical Formula: $C_{23}H_{20}N_6O$

CAS #: 1243244-14-5

Molecular Weight: 396.44

Purity: > 98%

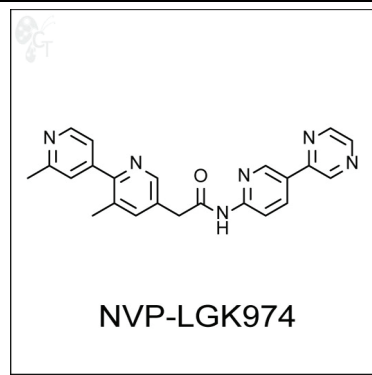
Appearance: White solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: 2-(2',3-dimethyl-[2,4'-bipyridin]-5-yl)-N-(5-(pyrazin-2-yl)pyridin-2-yl)acetamide

Storage: For longer shelf life, store solid powder or DMSO solution at -20°C desiccated.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



NVP-LGK974

- Handling:**
- To make 10 mM stock solution, add 0.252mL of DMSO for each mg of NVP-LGK974.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: LGK974 is a potent and orally active Wnt pathway inhibitor with an IC₅₀ <1 nM in the Wnt signaling assay [1]. It inhibits acylation of Wnt proteins by Porcupine (Porcn). LGK974 specifically blocks the proliferation of pancreatic cancer cells that have up-regulated Wnt signaling caused by carrying inactive mutations in a Ubiquitin E3 ligase, RNF43 [2].

LGK974 robustly suppressed Wnt signaling in vivo resulting in tumor regression in a murine breast cancer model driven by MMTV-Wnt1, and showed excellent efficacy in xenograft models of head and neck squamous cell carcinoma and pancreatic cancer [3]. Currently LGK974 is in the Phase I study to treat patients with different types of Wnt signaling-driven cancers [4].

- Reference:**
1. Shifeng Pan. Discovery of LGK974: A selective Porcupine inhibitor targeting Wnt signaling in cancer. AACR Annual Meeting 2013.
 2. Jiang X, et al. Inactivating mutations of RNF43 confer Wnt dependency in pancreatic ductal adenocarcinoma. Proc Natl Acad Sci USA. 2013; 110(31):12649-54. Pubmed ID: 23847203
 3. Liu J, et al. Targeting Wnt-driven cancer through the inhibition of Porcupine by LGK974. Proc Natl Acad Sci U S A. 2013; 110(50):20224-9 Pubmed ID: 24277854
 4. 2. <http://clinicaltrials.gov/show/NCT01351103>

To reorder: <http://www.cellagentech.com/NVP-LGK974/>

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.