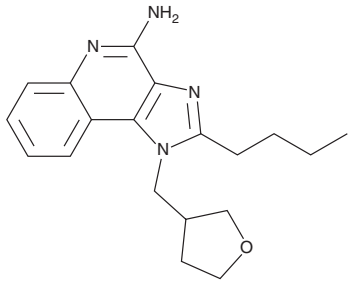
PRODUCT INFORMATION

SMU-L11

Item No. 40914

CAS Registry No.:	3029695-07-3
Formal Name:	2-butyl-1-[(tetrahydro-3-furanyl) methyl]-1H-imidazo[4,5-c] quinolin-4-amine
MF:	$C_{19}H_{24}N_4O$
FW:	324.4
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

SMU-L11 is supplied as a solid. A stock solution may be made by dissolving the SMU-L11 in the solvent of choice, which should be purged with an inert gas. SMU-L11 is sparingly soluble (1-10 mg/ml) in chloroform and slightly soluble (0.1-1 mg/ml) in acetonitrile:water (1:1).

Description

SMU-L11 is a toll-like receptor 7 (TLR7) agonist.[1] It selectively activates TLR7 over TLR8 signaling in a cell-based reporter assay (EC_{50}s = 0.024 and 4.9 µM, respectively) and is inactive at TLR2, -3, and -4 up to 100 µM. SMU-L11 enhances the protein-protein interaction between TLR7 and MyD88 and increases the phosphorylation of p65, p38, JNK, ERK1/2, and IFN regulatory factor 7 (IRF7) in isolated mouse bone marrow-derived dendritic cells (BMDCs). SMU-L11 increases TNF-α and IL-6 levels in RAW 264.7 macrophages and isolated mouse BMDCs and TNF-α and IL-1β levels in isolated human peripheral blood mononuclear cells (PBMCs). SMU-L11 increases the number of splenic and tumoral natural killer (NK) cells, $CD4^+$ and $CD8^+$ T cells, and M1-like macrophages and reduces tumor growth in a B16/F10 murine melanoma model.

Reference

1. Ou, J., Zheng, L., Chen, Y., *et al.* Heterocyclic-modified imidazoquinoline derivatives: Selective TLR7 agonist regulates tumor microenvironment against melanoma. *J. Med. Chem.* **67(5)**, 3321-3338 (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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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