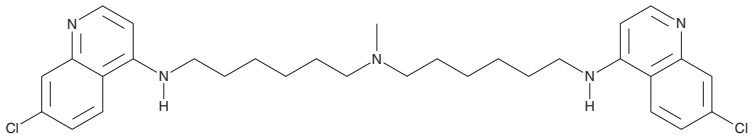
PRODUCT INFORMATION

DC661

Item No. 34899

CAS Registry No.:	1872387-43-3
Formal Name:	N^6-(7-chloro-4-quinolinyl)-N^1-[6-[(7-chloro-4-quinolinyl)amino]hexyl]-N^1-methyl-1,6-hexanediamine
MF:	$C_{31}H_{39}Cl_2N_5$
FW:	552.6
Purity:	≥95%
UV/Vis.:	λ_{max}: 218, 255, 331 nm
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

DC661 is supplied as a solid. A stock solution may be made by dissolving the DC661 in the solvent of choice, which should be purged with an inert gas. DC661 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of DC661 in these solvents is approximately 15, 25, and 30, respectively.

DC661 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DC661 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. DC661 has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

DC661 is an inhibitor of palmitoyl-protein thioesterase 1 (PPT1) and a dimeric form of hydroxychloroquine (Item No. 17911).[1] It binds to PPT1 and inhibits PPT1 enzyme activity in A375 cells when used at concentrations of 5, 10, and 100 µM. DC661 (10 µM) inhibits autophagic flux and induces apoptosis in B-RAF mutant melanoma cell lines. It also induces stimulator of interferon genes (STING) activation and enhances antigen-primed T cell-mediated killing of B16/F10 murine melanoma cells in mouse splenocyte co-cultures.[2] *In vivo*, DC661 (10 mg/kg) reduces intratumor autophagy and suppresses tumor growth in an HT-29 mouse xenograft model.[1]

References

1. Rebecca, V.W., Nicastri, M.C., Fennelly, C., *et al.* PPT1 promotes tumor growth and is the molecular target of chloroquine derivatives in cancer. *Cancer Discov.* **9(2)**, 220-229 (2019).
2. Sharma, G., Ojha, R., Noguera-Ortega, E., *et al.* PPT1 inhibition enhances the antitumor activity of anti-PD-1 antibody in melanoma. *JCI Insight* **5(17)**, e133225 (2020).

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