

PRODUCT INFORMATION



PDIC-NS

Item No. 40481

Formal Name: 2,2'-(5,6,12,13-tetrachloro-1,3,8,10-tetraoxo-1,3,8,10-tetrahydroanthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline-2,9-diyil)bis(N,N-dimethylethan-1-aminium), dimethanesulfonate

MF: C₃₂H₂₆Cl₄N₄O₄ • 2CH₃SO₃

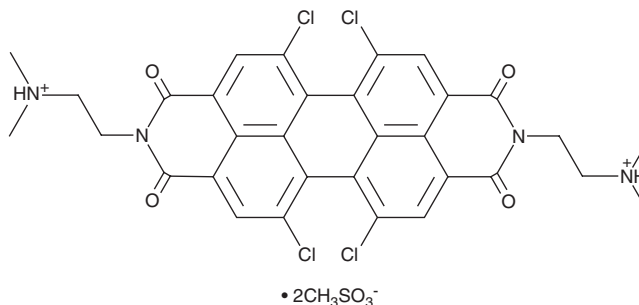
FW: 862.6

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

PDIC-NS is supplied as a solid. A stock solution may be made by dissolving the PDIC-NS in the solvent of choice, which should be purged with an inert gas. PDIC-NS is soluble in DMSO.

PDIC-NS is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

PDIC-NS is an activator of stimulator of interferon genes (STING).¹ It increases the levels of reactive oxygen species (ROS) and induces apoptosis in LL/2 lung carcinoma cells when used at a concentration of 2.5 μM. PDIC-NS (2.5 μM) induces cell cycle arrest at the S phase, increases cytosolic levels of mitochondrial DNA (mtDNA), and increases levels of phosphorylated TANK-binding kinase 1 (Tbk1), interferon regulating factor 3 (Irf3), and STING in, as well as increases secretion of 2',3'-cGAMP and ATP from, LL/2 cells. It decreases tumor volume and weight and increases the percentage of intratumoral M1 macrophages and mature dendritic cells in an LL/2 mouse xenograft model when administered at a dose of 2 mg/kg twice per day. PDIC-NS (2.5 mg/kg twice per day) reduces lung weight and the number of lung metastases in wild-type and *Sting1*^{-/-} mice in an LL/2 model of lung metastasis. It also increases serum levels of Ifn-β, Ifn-γ, Tnf-α, and chemokine (C-X-C motif) ligand 10 (Cxcl10), as well as increases the percentage of intratumoral CD4⁺, CD8⁺, and CD38⁺ T cells, in wild-type mice, and, to a lesser extent, in *Sting1*^{-/-} mice, in the same model.

Reference

1. Zhao, X., Zheng, R., Zhang, B., *et al.* Sulfonated perylene as three-in-one STING agonist for cancer chemo-immunotherapy. *Angew. Chem. Int. Ed. Engl.* e202318799 (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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