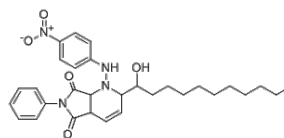


Product Name	: A12B4C3
Synonyms	: hPNKP inhibitor A12B4C3
Cat No.	: M10040
CAS Number	: 1005129-80-5
Molecular Formula	: C30H38N4O5
Formula Weight	: 534.66
Chemical Name	: 4a,7a-Dihydro-2-(1-hydroxyundecyl)-1-[(4-nitrophenyl)amino]-6-phenyl-1H-pyrrolo[3,4-b]pyridine-5,7(2H,6H)-dione



Description	: A12B4C3 (hPNKP inhibitor A12B4C3) is a specific, noncompetitive inhibitor of the human DNA repair enzyme polynucleotide kinase/phosphatase (hPNKP) with C50 of 60 nM, displays no inhibition of calcineurin and protein phosphatase-1 or APTX; A12B4C3 enhanced the radiosensitivity of human A549 lung carcinoma and MDA-MB-231 breast adenocarcinoma cells, failed to increase the radiosensitivity of the hPNKP-depleted cells; A12B4C3 also inhibits the repair of DNA single and double strand breaks following exposure of cells to ionizing radiation, but does not inhibit two other key strand-break repair enzymes, DNA polymerase beta or DNA ligase III.
Pathway	: Cell Cycle/DNA Damage
Target	: DNA Repair Protein
Receptor	: DNA Repair Protein
Solubility	: —
SMILES	: <chem>O=C1N(C2=CC=CC=C2)C(C3C1C=CC(C(O)CCCCCCCCC)N3NC4=CC=C([N+](O)=O)C=C4)=O</chem>
Storage	: (-20°C)
Stability	: ≥ 2 years
Reference	:

1. Freschauf GK, et al. Cancer Res. 2009 Oct 1;69(19):7739-46. | 2. Freschauf GK, et al. J Biol Chem. 2010 Jan 22;285(4):2351-60. | 3. Zereskian A, et al. Nucl Med Biol. 2014 May-Jun;41(5):377-83.