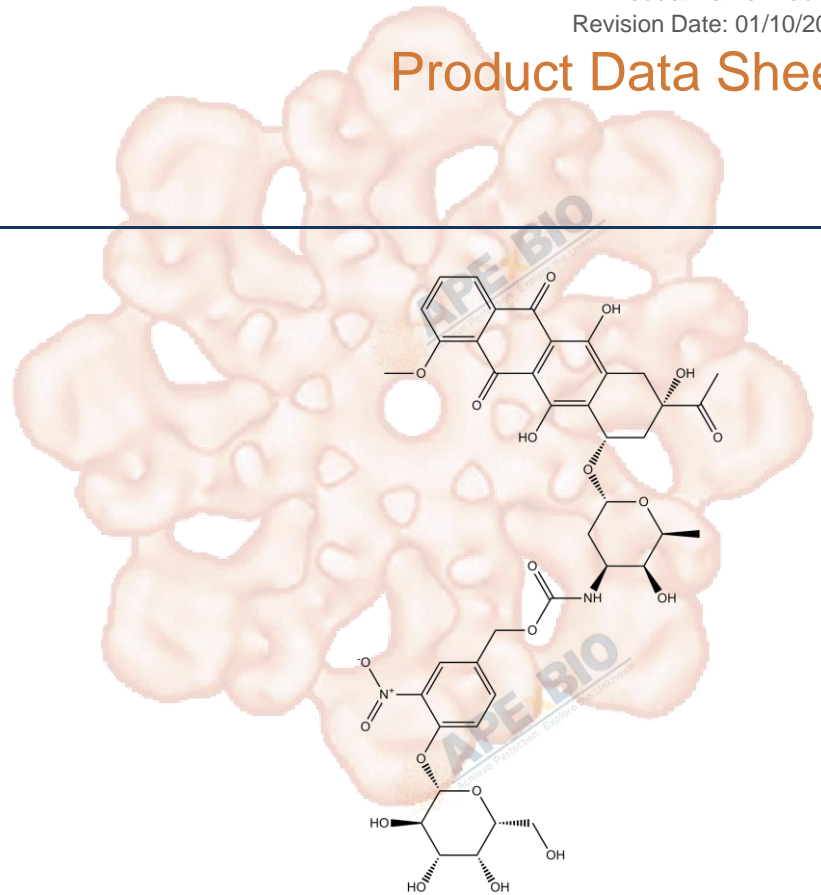


Product Data Sheet

Daun02

Cat. No.:	A3352
CAS No.:	290304-24-4
Formula:	C ₄₁ H ₄₄ N ₂ O ₂₀
M.Wt:	884.79
Synonyms:	Daun 02; Daun-02
Target:	PI3K/Akt/mTOR Signaling
Pathway:	DNA-PK
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; insoluble in EtOH; ≥17.92 mg/mL in DMSO with ultrasonic

In Vitro

Preparing Stock Solutions	Solvent Concentration	Mass	1mg	5mg	10mg
	1 mM		1.1302 mL	5.6511 mL	11.3021 mL
	5 mM		0.2260 mL	1.1302 mL	2.2604 mL
	10 mM		0.1130 mL	0.5651 mL	1.1302 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Cell viability inhibitor, DNA synthesis inhibitor

IC₅₀ & Target

1.5 μM (Panc02), 3.5 μM (MCF-7), 0.5 μM (T47-D)

In Vitro

Cell Viability Assay

Cell Line: Panc02, MCF-7, T47-D, PC3, DU145 and LNCap cells (transduced to express

	E.coli β -gal)
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	EC50: 0.5 to 5.5 μ M, 24 hours
Applications:	The prodrug Daun02 was converted to daunomycin by the β -galactosidase. It inhibited the cell viability with EC50 values of 1.5, 3.5, 0.5, 5.0, 5.5, 5.0 for Panc02, MCF-7, T47-D, PC3, DU145 and LNCap tumor cells, respectively.
Animal experiment	
Animal models:	Male athymic BALB/c mice implanted with β -gal-transduced Panc02 cells
Dosage form:	Intraperitoneal injection, 200 mg/kg
Applications:	None of the tumors responded to treatment with intraperitoneal Daun02. The dose for Daun02 was the highest tested due to the limited water solubility of the compound. At this dose, the animals did not appear to experience any toxicity as evidenced by normal physical and behavioral characteristics and continued weight gain. It may be due to the less distribution and the poor penetrability of Daun02 across cell membranes.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.
In Vivo	

Product Citations

1. Nennig SE, Fulenwider HD, et al. "Selective Lesioning of NuclearFactor- κ B Activated Cells in the Nucleus Accumbens Shell Attenuates Alcohol PlacePreference." *Neuropsychopharmacology*. 2018 Apr;43(5):1032-1040.PMID:28901327
2. Funk D, Coen K, et al. "Role of Central AmygdalaNeuronal Ensembles in Incubation of Nicotine Craving. *J Neurosci*." 2016 Aug 17;36(33):8612-23.PMID:27535909

See more customer validations on www.apexbt.com.

References

- [1] David Farquhar, Bih Fang Pan, Mamoru Sakurai, Ajit Ghosh, Craig A. Mullen, J. Arly Nelson. Suicide gene therapy using E.Coli β -galactosidase. *Cancer ChemotherPharmacol*.2002, 50: 65–70.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.



Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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