

## **Certificate of Analysis**

Catalog Number	BP17728
Product Name	DMAPT

## **Physical and Chemical Properties**

Synonyms	Dimethylamino Parthenolide
CAS No.	870677-05-7
Chemical Formula	C17H27NO3
Molecular Weight	293.407
Solubility	DMSO: 100 mg/mL (340.83 mM), Need ultrasonic
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

## **Product Information**

Description	DMAPT is a water-soluble analogue of Parthenolide (PTL). It is an orally active NF- $\kappa$ B inhibitor with an LD50 of 1.7 $\mu$ M on primary acute myeloid leukemia cells.
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Targets&IC50	NF-κB:1.7 μM(LD50)
In vitro	DMAPT treatment reduced the constitutive NF- $\kappa$ B binding activity and inhibited the proliferation and viability of PC-3 and DU145 cells. Treatment of PC-3 and DU145 cells with 5 and 4 $\mu$ M DMAPT, respectively, increased the population doubling time of PC-3 prostate cancer cells from 23.0 $\pm$ 5.0 h to 42.0 $\pm$ 3.0 h, while the population doubling time of DU145 cells increased from 20.4 $\pm$ 2.2 h By 72.5 $\pm$ 24.8 hours.
In vivo	DMAPT (100 mg/kg, oral gavage daily for 7 days) treatment can increase the sensitivity of PC-3 tumor xenografts to X- rays. DMAPT (100 mg/kg, 42 to 300 days from birth, oral gavage three times a week) treatment can slow the normal tumor development of TRAMP mice and prolong the reachable prostate tumor time by 20%. DMAPT further reduced the lung tissue transfer area of TRAMP mice to below the water vehicle treatment group (0.10%±0.15 SD, 92% reduction, p = 0.0028).

## **Analytical Data**

Analytical Data	
HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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