

## Data Sheet (Cat.No.TN3737)

Cycloartane-3,24,25-triol

### Chemical Properties

CAS No.:	57576-29-1
Formula:	C30H52O3
Molecular Weight:	460.7
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

### Biological Description

Description	Cycloartane-3,24,25-triol has potential for development as an anti-cancer agent against prostate cancer. It reduces the viability of PC-3 and DU145 cell lines with IC50 values of $2.226 \pm 0.28 \mu\text{M}$ and $1.67 \pm 0.18 \mu\text{M}$ respectively.
Targets(IC50)	ATPase: None
In vitro	Given the high occurrence of prostate cancer worldwide and one of the major sources of the discovery of new lead molecules being medicinal plants, this research undertook to investigate the possible anti-cancer activity of two natural cycloartanes; cycloartane-3,24,25-diol (extracted in our lab from <i>Tillandsia recurvata</i> ) and Cycloartane-3,24,25-triol (purchased). The inhibition of MRCK $\alpha$ kinase has emerged as a potential solution to restoring the tight regulation of normal cellular growth, the loss of which leads to cancer cell formation. METHODS AND RESULTS: Kinase inhibition was investigated using competition binding (to the ATP sites) assays which have been previously established and authenticated and cell proliferation was measured using the WST-1 assay. Cycloartane-3,24,25-triol demonstrated strong selectivity towards the MRCK $\alpha$ kinase with a Kd50 of $0.26 \mu\text{M}$ from a total of 451 kinases investigated. Cycloartane-3,24,25-triol reduced the viability of PC-3 and DU145 cell lines with IC50 values of $2.226 \pm 0.28 \mu\text{M}$ and $1.67 \pm 0.18 \mu\text{M}$ respectively.CONCLUSIONS:These results will prove useful in drug discovery as Cycloartane-3,24,25-triol has shown potential for development as an anti-cancer agent against prostate cancer.

### Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble
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#### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.171 mL	10.853 mL	21.706 mL
5 mM	0.434 mL	2.171 mL	4.341 mL
10 mM	0.217 mL	1.085 mL	2.171 mL
50 mM	0.043 mL	0.217 mL	0.434 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Cycloartane-3,24,25-triol inhibits MRCK $\alpha$  kinase and demonstrates promising anti prostate cancer activity in vitro. Cancer Cell Int. 2012 Nov 14;12(1):46.

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