# Thailanstatin D

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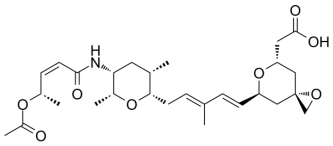
| **Cat. No.:** | HY-139104 |
| **CAS No.:** | 1609105-89-6 |
| **Molecular Formula:** | $C_{28}H_{41}NO_8$ |
| **Molecular Weight:** | 519.63 |
| **Target:** | DNA/RNA Synthesis; Apoptosis |
| **Pathway:** | Cell Cycle/DNA Damage; Apoptosis |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

**Description**

Thailanstatin D, an analogue of Thailanstatin A, is able to inhibit AR-V7 gene splicing by interfering the interaction between U2AF65 and SAP155 and preventing them from binding to polypyrimidine tract located between the branch point and the 3' splice site. Thailanstatin D exhibits a potent tumor inhibitory effect on human CRPC xenografts leading to cell apoptosis[1].

**In Vitro**

Thailanstatin D (0-50 nM; 4 hours) significantly decreases the protein levels of AR-V7 and other AR-Vs (AR splice variants)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

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| Cell Line: | VCaP, 22RV1 and LN95 cells |
| Concentration: | 0-50 nM |
| Incubation Time: | 4 hours |
| Result: | The mRNA levels of both AR-V7 and AR-FL were suppressed by Thailanstatin D in a dose-dependent manner. |

**In Vivo**

Thailanstatin D (300 μg/kg; ALZET osmotic pumps; daily for 4 days) significantly inhibits the tumor growth[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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| Animal Model: | NOD-SCID mice ( Mice bearing 22RV1 xenografts)[1] |
| Dosage: | 300 μg/kg |
| Administration: | ALZET osmotic pumps; daily for 4 days |
| Result: | Significantly inhibited the tumor growth. |

## REFERENCES

[1]. Wang B, et al. Developing new targeting strategy for androgen receptor variants in castration resistant prostate cancer. Int J Cancer. 2017;141(10):2121-2130.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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