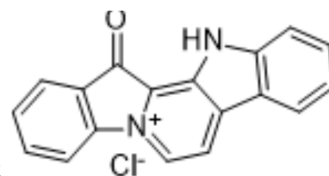


Fascaplysin

Cat. No.:	HY-112328
CAS No.:	114719-57-2
Molecular Formula:	C ₁₈ H ₁₁ ClN ₂ O
Molecular Weight:	306.75
Target:	Apoptosis; Autophagy; Reactive Oxygen Species; CDK
Pathway:	Apoptosis; Autophagy; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Fascaplysin is an antimicrobial and cytotoxic red pigment, that can come from the marine sponge (Fascaplysinopsis sp.). Fascaplysin has been synthesized in seven steps from indole (65% yield). Fascaplysin can induce apoptosis and autophagy in human leukemia HL-60 cells. Fascaplysin shows anti-tumor activity ^{[1][2]} .
IC₅₀ & Target	CDK4
In Vitro	Fascaplysin induces autophagy as a cytoprotective response via ROS and p8 in vascular endothelial cells (VECs) ^[2] . Fascaplysin targets metabolic activity of the prostate cancer cells, without disrupting cell membrane's integrity ^[2] . Fascaplysin induces caspase mediated crosstalk between apoptosis and autophagy through the inhibition of PI3K/AKT/mTOR signaling cascade in human leukemia HL-60 cells ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Fascaplysin suppresses the growth of S180 cell-implanted tumors in vivo ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Benjamin Pelcman, Gordon W Gribble. Total synthesis of the marine sponge pigment fascaplysin. Tetrahedron Letters. 1990, 31(17):2381-2384.
- [2]. Zhidkov ME, et al. Total Syntheses and Preliminary Biological Evaluation of Brominated Fascaplysin and Reticulatine Alkaloids and Their Analogues. Mar Drugs. 2019 Aug 25;17(9):496.

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

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