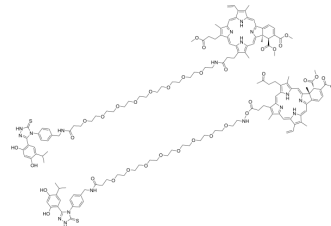


HS-291

Cat. No.:	HY-157084
Molecular Formula:	C ₁₅₆ H ₁₉₄ N ₁₈ O ₃₆ S ₂
Molecular Weight:	2961.44
Target:	ROS Kinase; Bacterial
Pathway:	Protein Tyrosine Kinase/RTK; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	HS-291 is a HtpG inhibitor of <i>Borrelia burgdorferi</i> (Bb). HS-291 contains BX-2819 (high affinity for Bb HtpG), PEG linker, and Verteporfin (HY-B0146) (a photoactive toxin). HS-291 produces reactive oxygen species under light activation to oxidize HtpG and a discrete protein subset near chaperone proteins and can quickly and irreversibly inactivate Bb ^[1] .
In Vitro	HS-291 (0.1-10 μM, 24 h) inhibits Bb culture viability when excited with nrIR (Ex: 693nm 5 J/cm ²) ^[1] . HS-291 (10 μM, 90 min) can specifically target Bb in Bb culture ^[1] . HS-291 (0-10 μM, 24 h) causes cell wall blebbing, nucleoid condensation and loss of cell wall integrity of cells when excited with nrIR (Ex: 693nm 5 J/cm ²) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Carlson DL, et al. Targeting *Borrelia burgdorferi* HtpG with a berserker molecule, a strategy for anti-microbial development. *Cell Chem Biol.* 2023 Nov 1:S2451-9456(23)00340-9.

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

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