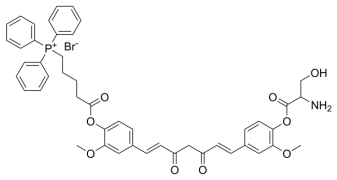
Ser@TPP@CUR

Cat. No.:	HY-151342
Molecular Formula:	$C_{47}H_{47}BrNO_9P$
Molecular Weight:	880.76
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Ser@TPP@CUR is a Curcumin (HY-N0005) derivative. Ser@TPP@CUR effectively ameliorates injured renal tubular epithelial cells and improves renal functions of acute kidney injury (AKI) mice. Ser@TPP@CUR can be used for the research of AKI[1] .

In Vitro

Ser@TPP@CUR (7.16 μg/mL; 24 h) effectively reduces ROS level in inflammatory HK-2 cells[1].
Ser@TPP@CUR (3 μg/mL; 24 h) effects cell viability and inhibits expression levels of cytosolic cytochrome c, cleaved caspase-3, and cleaved caspase-9 of LPS-induced HK-2 cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	LPS-induced HK-2 cell lines
Concentration:	3 μg/mL
Incubation Time:	24 hours
Result:	Significantly improved cell viability of LPS-induced HK-2 cells.

In Vivo

Ser@TPP@CUR (4 mg/kg; i.v. once) shows a better distribution in renal tissues via KIM-1-receptor-mediated endocytosis in renal tubule epithelial cells and restores renal function of AKI mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	AKI mice[1]
Dosage:	4 mg/kg
Administration:	Intravenous injection; 4 mg/kg once
Result:	Showed a better distributionin in renal tissues than CUR at 2 hours after injection and restored renal function of AKI mice by alleviated Scr and BUN levels.

REFERENCES

[1]. Yan X, et al. A Stepwise Targeting Curcumin Derivative, Ser@TPP@CUR, for Acute Kidney Injury. ACS Med Chem Lett. 2022 Mar 8;13(4):554-559.

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