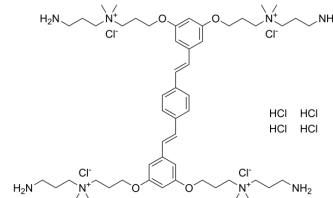


## COE-PNH2

<b>Cat. No.:</b>	HY-158003
<b>Molecular Formula:</b>	C <sub>54</sub> H <sub>98</sub> Cl <sub>8</sub> N <sub>8</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	1207.03
<b>Target:</b>	Bacterial
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



## BIOLOGICAL ACTIVITY

<b>Description</b>	COE-PNH2 exhibits antibacterial activity against <i>Mycobacterium abscessus</i> (Mab) with MIC <sub>90</sub> of 26 μM. COE-PNH2 affects the integrity of the bacterial envelope and mycomembrane. COE-PNH2 reveals intracellular penetration without mitochondrial toxicity <sup>[1]</sup> .
<b>In Vitro</b>	COE-PNH2 (0-128 μg/mL) exhibits a stable antibacterial activity and extreme antibiotic tolerance against intracellular, replicating and nutrient-starved, non-replicating Mab <sup>[1]</sup> . COE-PNH2 exhibits a low propensity for resistance development with consistent MIC values in 14 passages of Mab <sup>[1]</sup> . COE-PNH2 (0-64 μg/mL) induces a depletion of ATP, accumulation of intracellular lipid inclusions (ILIs) and bacterial elongation in Mab <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	COE-PNH2 (2.5-5 mg/kg, intratracheal, every other day for 12 days) exhibits well tolerance and efficiency in acute lung infection in C3HeB/FeJ mice <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>Animal Model:</b>	Acute lung infection in C3HeB/FeJ mice <sup>[1]</sup>
<b>Dosage:</b>	2.5-5 mg/kg
<b>Administration:</b>	Intratracheal administration every other day for 12 days
<b>Result:</b>	Reduced the colony-forming units (CFU) and bacilli in lung without weight loss.

## REFERENCES

[1]. Zhang K, et al., An anti-mycobacterial conjugated oligoelectrolyte effective against *Mycobacterium abscessus*. *Sci Transl Med.* 2024 Feb 21;16(735):eadi7558.

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

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