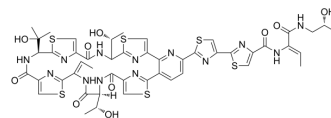


## Thiocillin I

<b>Cat. No.:</b>	HY-125733
<b>CAS No.:</b>	59979-01-0
<b>Molecular Formula:</b>	C <sub>48</sub> H <sub>49</sub> N <sub>13</sub> O <sub>10</sub> S <sub>6</sub>
<b>Molecular Weight:</b>	1160.37
<b>Target:</b>	Bacterial; Antibiotic
<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>	Thiocillin I is a thiopeptide antibiotic and has in vitro antibacterial activity against Gram-positive bacterial strains. The MIC values of Thiocillin I against <i>S. aureus</i> 1974149, <i>E. faecalis</i> 1674621, <i>B. subtilis</i> ATCC 6633 and <i>S. pyogenes</i> 1744264 are 2 µg/mL, 0.5 µg/mL, 4 µg/mL and 0.5 µg/mL, respectively <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Bacterial <sup>[1]</sup>
<b>In Vitro</b>	Thiocillin I (2 µM; 24 hours; U-2OS C3 osteosarcoma cells) is not proteasome inhibitor, and does not stabilize expression of multiple cellular proteins and suppresses FoxM1 expression in U-2OS C3 osteosarcoma cells <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Akasapu S, et al. Total synthesis of micrococccin P1 and thiocillin I enabled by Mo(vi) catalyst. Chem Sci. 2018 Dec 3;10(7):1971-1975.
- [2]. Pandit B, et al. Proteasome inhibitory activity of thiazole antibiotics. Cancer Biol Ther. 2011 Jan 1;11(1):43-7.

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

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