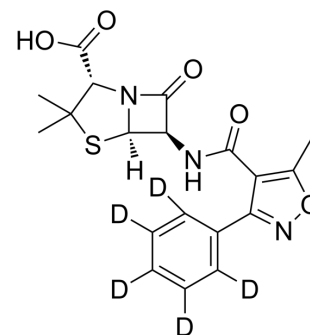


## Oxacillin-d5

<b>Cat. No.:</b>	HY-B0925AS
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>14</sub> D <sub>5</sub> N <sub>3</sub> O <sub>5</sub> S
<b>Molecular Weight:</b>	406.47
<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>	Oxacillin-d <sub>5</sub> is the deuterium labeled Oxacillin[1]. Oxacillin is an orally active synthetic penicillin with good bactericidal activity against staphylococci and other gram-positive pathogens[2].
<b>In Vitro</b>	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. KIRBY WM, et al. Oxacillin: laboratory and clinical evaluation. *JAMA*. 1962 Sep 1;181:739-44.
- [3]. Yurchenco JA, et al. Nafcillin and oxacillin: comparative antistaphylococcal activity in mice. *J Antibiot (Tokyo)*. 1976 Apr29(4):460-5.

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

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