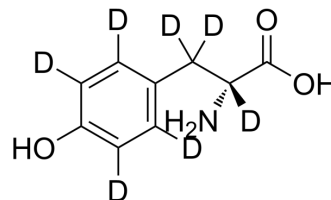


## D-Tyrosine-d<sub>7</sub>

Cat. No.:	HY-Y0444S2
CAS No.:	1426174-46-0
Molecular Formula:	C <sub>9</sub> H <sub>4</sub> D <sub>7</sub> NO <sub>3</sub>
Molecular Weight:	188.23
Target:	Tyrosinase; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	D-Tyrosine-d <sub>7</sub> is the deuterium labeled D-Tyrosine. D-Tyrosine is the D-isomer of tyrosine. D-Tyrosine negatively regulates melanin synthesis by inhibiting tyrosinase activity. D-Tyrosine inhibits biofilm formation and trigger the self-dispersal of biofilms without suppressing bacterial growth[1][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;53(2):211-216.
- [2]. Cong Yu, et al. Inhibition of Biofilm Formation by D-tyrosine: Effect of Bacterial Type and D-tyrosine Concentration. *Water Res*. 2016 Apr 1;92:173-9.
- [3]. Jisu Park, et al. D-tyrosine Negatively Regulates Melanin Synthesis by Competitively Inhibiting Tyrosinase Activity. *Pigment Cell Melanoma Res*. 2018 May;31(3):374-383.

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

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