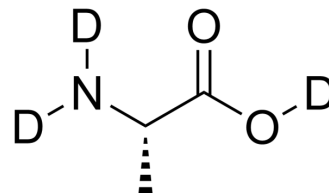


## L-Alanine-d<sub>3</sub>-1

|                           |  |       |          |
|---------------------------|--|-------|----------|
| <b>Cat. No.:</b>          | HY-N0229S16  |       |          |
| <b>CAS No.:</b>           | 19470-97-4   |       |          |
| <b>Molecular Formula:</b> | C <sub>3</sub> H <sub>4</sub> D <sub>3</sub> NO <sub>2</sub> |       |          |
| <b>Molecular Weight:</b>  | 92.11  |       |          |
| <b>Target:</b>            | Endogenous Metabolite  |       |          |
| <b>Pathway:</b>           | Metabolic Enzyme/Protease                                    |       |          |
| <b>Storage:</b>           | Powder   | -20°C | 3 years  |
|                           |  | 4°C   | 2 years  |
|                           | In solvent   | -80°C | 6 months |
|                           |  | -20°C | 1 month  |



### BIOLOGICAL ACTIVITY

|                    |  |
|--------------------|--|
| <b>Description</b> | L-Alanine-d <sub>3</sub> -1 is the deuterium labeled L-Alanine[1]. L-Alanine is a non-essential amino acid, involved in sugar and acid metabolism, increases immunity, and provides energy for muscle tissue, brain, and central nervous system[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> .<br>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]. Nagashima T, et al. Selective Elimination of Human Induced Pluripotent Stem Cells Using Medium with High Concentration of L-Alanine. *Sci Rep.* 2018 Aug 20;8(1):12427.

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

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