## DL-Alanine-<sup>13</sup>C-1

| Cat. No.:          | HY-N2362S   | $\bigcirc$ |
|--------------------|---|------------|
| CAS No.:           | 102029-81-2   | Ŭ          |
| Molecular Formula: | C <sub>2</sub> <sup>13</sup> CH <sub>7</sub> NO <sub>2</sub>  | 130        |
| Molecular Weight:  | 90.09   |            |
| Target:            | Endogenous Metabolite   | Y OH       |
| Pathway:           | Metabolic Enzyme/Protease   |            |
| Storage:           | 4°C, sealed storage, away from moisture and light<br>* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture<br>and light) | $NH_2$     |

## SOLVENT & SOLUBILITY

|  | H <sub>2</sub> O : 50 mg/mL (555<br>DMSO : 1 mg/mL (11<br>DMSO : 1 mg/mL (11 | H <sub>2</sub> O : 50 mg/mL (555.00 mM; Need ultrasonic)<br>DMSO : 1 mg/mL (11.10 mM; ultrasonic and warming and heat to 80°C)<br>DMSO : 1 mg/mL (11.10 mM; ultrasonic and warming and heat to 80°C) |            |            |             |  |  |
|--|--|--|------------|------------|-------------|--|--|
|  |  | Mass<br>Solvent<br>Concentration   | 1 mg       | 5 mg       | 10 mg       |  |  |
|  | Preparing<br>Stock Solutions   | 1 mM   | 11.1000 mL | 55.5001 mL | 111.0001 ml |  |  |
|  |  | 5 mM   | 2.2200 mL  | 11.1000 mL | 22.2000 mL  |  |  |
|  |  | 10 mM  | 1.1100 mL  | 5.5500 mL  | 11.1000 mL  |  |  |

| Description | DL-Alanine- <sup>13</sup> C-1 is the <sup>13</sup> C-labeled DL-Alanine. DL-alanine, an amino acid, is the racemic compound of L- and D-alanine. DL-<br>alanine is employed both as a reducing and a capping agent, used with silver nitrate aqueous solutions for the production of<br>nanoparticles. DL-alanine can be used for the research of transition metals chelation, such as Cu(II), Zn(II), Cd(11). DL-<br>alanine, a sweetener, is classed together with glycine, and sodium saccharin. DL-alanine plays a key role in the glucose-<br>alanine cycle between tissues and liver[1][2][3][4][5][6]. |  |  |  |
|-------------|---|--|--|--|
| In Vitro    | 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;53(2):211-216.

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

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