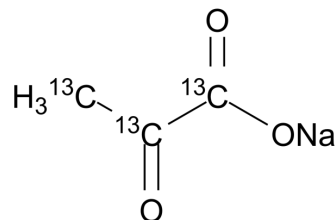


## Sodium 2-oxopropanoate-<sup>13</sup>C<sub>3</sub>

|                           |  |
|---------------------------|--|
| <b>Cat. No.:</b>          | HY-W015913S  |
| <b>CAS No.:</b>           | 142014-11-7  |
| <b>Molecular Formula:</b> | <sup>13</sup> C <sub>3</sub> H <sub>3</sub> NaO <sub>3</sub>   |
| <b>Molecular Weight:</b>  | 113.02   |
| <b>Target:</b>            | Endogenous Metabolite; Reactive Oxygen Species   |
| <b>Pathway:</b>           | Metabolic Enzyme/Protease; Immunology/Inflammation; NF-κB  |
| <b>Storage:</b>           | -20°C, sealed storage, away from moisture<br>* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 250 mg/mL (2212.00 mM; Need ultrasonic)

| Solvent                   | Mass  | Concentration |            |            |
|---------------------------|-------|---------------|------------|------------|
|                           |       | 1 mg          | 5 mg       | 10 mg      |
| Preparing Stock Solutions | 1 mM  | 8.8480 mL     | 44.2400 mL | 88.4799 mL |
|                           | 5 mM  | 1.7696 mL     | 8.8480 mL  | 17.6960 mL |
|                           | 10 mM | 0.8848 mL     | 4.4240 mL  | 8.8480 mL  |

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Sodium 2-oxopropanoate-<sup>13</sup>C<sub>3</sub> is the <sup>13</sup>C-labeled Sodium 2-oxopropanoate. Sodium 2-oxopropanoate (Sodium pyruvate), a three-carbon metabolite of Glucose, is a compound produced in the glycolytic pathway. Sodium 2-oxopropanoate is a free radical scavenger that can scavenge ROS[1][2].

#### 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>.  
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]. S Nemoto, et al. Role for mitochondrial oxidants as regulators of cellular metabolism. *Mol Cell Biol.* 2000 Oct;20(19):7311-8.

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

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