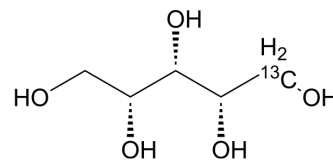


## Xylitol-5-<sup>13</sup>C

|                           |  |          |       |         |  |     |         |            |       |          |  |       |         |
|---------------------------|--|----------|-------|---------|--|-----|---------|------------|-------|----------|--|-------|---------|
| <b>Cat. No.:</b>          | HY-N0538S2   |          |       |         |  |     |         |            |       |          |  |       |         |
| <b>Molecular Formula:</b> | C <sub>4</sub> <sup>13</sup> CH <sub>12</sub> O <sub>5</sub>   |          |       |         |  |     |         |            |       |          |  |       |         |
| <b>Molecular Weight:</b>  | 153.14   |          |       |         |  |     |         |            |       |          |  |       |         |
| <b>Target:</b>            | Autophagy; Bacterial; Endogenous Metabolite  |          |       |         |  |     |         |            |       |          |  |       |         |
| <b>Pathway:</b>           | Autophagy; Anti-infection; Metabolic Enzyme/Protease   |          |       |         |  |     |         |            |       |          |  |       |         |
| <b>Storage:</b>           | <table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table> | Powder   | -20°C | 3 years |  | 4°C | 2 years | In solvent | -80°C | 6 months |  | -20°C | 1 month |
| Powder                    | -20°C  | 3 years  |       |         |  |     |         |            |       |          |  |       |         |
|                           | 4°C  | 2 years  |       |         |  |     |         |            |       |          |  |       |         |
| In solvent                | -80°C  | 6 months |       |         |  |     |         |            |       |          |  |       |         |
|                           | -20°C  | 1 month  |       |         |  |     |         |            |       |          |  |       |         |



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 100 mg/mL (653.00 mM; Need ultrasonic)

| Concentration | Mass      |            |            |  |
|---------------|-----------|------------|------------|--|
|               | 1 mg      | 5 mg       | 10 mg      |  |
| 1 mM          | 6.5300 mL | 32.6499 mL | 65.2997 mL |  |
| 5 mM          | 1.3060 mL | 6.5300 mL  | 13.0599 mL |  |
| 10 mM         | 0.6530 mL | 3.2650 mL  | 6.5300 mL  |  |

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

### BIOLOGICAL ACTIVITY

#### Description

Xylitol-5-<sup>13</sup>C is the <sup>13</sup>C labeled Xylit[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 Feb;53(2):211-216.  
[2]. <http://en.wikipedia.org/wiki/Xylitol>

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

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