## Stearic acid-<sup>13</sup>C<sub>18</sub>

MedChemExpress

| Cat. No.:          | HY-B2219S2   |                                  |  |
|--------------------|--|----------------------------------|--|
| CAS No.:           | 287100-83-8  |                                  | <sup>13</sup> CH <sub>3</sub><br>H <sub>2</sub> <sup>13</sup> d <sup>3</sup> CH <sub>2</sub>                               |
| Molecular Formula: | <sup>13</sup> C <sub>18</sub> H <sub>36</sub> O <sub>2</sub> |                                  | H₂ <sup>13</sup> Č <sup>3</sup> CH₂<br>H₂ <sup>13</sup> Č <sup>3</sup> CH₂   |
| Molecular Weight:  | 302.35   |                                  | H <sub>2</sub> <sup>13</sup> CH <sub>2</sub>   |
| Target:            | Endogenous Metab   | olite; Isotope-Labeled Compounds | H <sub>2</sub> <sup>13</sup> Č <sup>3</sup> CH <sub>2</sub><br>H <sub>2</sub> <sup>13</sup> Č <sup>3</sup> CH <sub>2</sub> |
| Pathway:           | Metabolic Enzyme/  | Protease; Others                 | H₂ <sup>13</sup> Č <sup>3</sup> CH₂<br>H₂ <sup>13</sup> Č <sup>3</sup> CH₂   |
| Storage:           | Powder -20°C   | 3 years                          | HÔ <sup>3</sup> C  |
|                    | 4°C  | 2 years                          |  |
|                    | In solvent -80°C   | 6 months                         |  |
|                    | -20°C  | 1 month                          |  |

## **SOLVENT & SOLUBILITY**

|  | Preparing<br>Stock Solutions | Solvent Mass<br>Concentration | 1 mg      | 5 mg       | 10 mg      |
|--|------------------------------|-------------------------------|-----------|------------|------------|
|  |                              | 1 mM                          | 3.3074 mL | 16.5371 mL | 33.0742 mL |
|  |                              | 5 mM                          | 0.6615 mL | 3.3074 mL  | 6.6149 mL  |
|  |                              | 10 mM                         | 0.3307 mL | 1.6537 mL  | 3.3074 mL  |

| BIOLOGICAL ACTIVITY |   |  |  |  |
|---------------------|---|--|--|--|
| Description         | Stearic acid- <sup>13</sup> C <sub>18</sub> is the <sup>13</sup> C-labeled Stearic acid. Stearic acid is a long chain dietary saturated fatty acid which exists in many animal and vegetable fats and oils.   |  |  |  |
| 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]. Shen MC et al. Dietary stearic acid leads to a reduction of visceral adipose tissue in athymic nude mice. PLoS One. 2014 Sep 15;9(9):e104083.

[2]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

Product Data Sheet

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

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