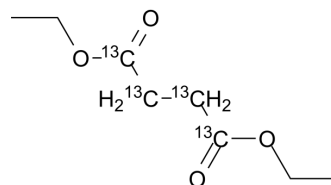


## Diethyl succinate-<sup>13</sup>C<sub>4</sub>

<b>Cat. No.:</b>	HY-Y0836S		
<b>CAS No.:</b>	1628796-56-4		
<b>Molecular Formula:</b>	C <sub>4</sub> <sup>13</sup> C <sub>4</sub> H <sub>14</sub> O <sub>4</sub>		
<b>Molecular Weight:</b>	178.16		
<b>Target:</b>	Isotope-Labeled Compounds		
<b>Pathway:</b>	Others		
<b>Storage:</b>	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

<b>Description</b>	Diethyl succinate- <sup>13</sup> C <sub>4</sub> is the <sup>13</sup> C labeled Diethyl succinate[1]. Diethyl succinate (Diethyl Butanedioate) is used at physiological pH and crosses biological membranes, incorporates into cells in tissue culture and is metabolized by the TCA cycle. Diethyl succinate is known to be non-toxic and used in fragrances and flavoring[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> . 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]. Zacharias NM, et al. Real-time molecular imaging of tricarboxylic acid cycle metabolism in vivo by hyperpolarized 1-(<sup>13</sup>C) diethyl succinate. *J Am Chem Soc*. 2012 Jan 18;134(2):934-43.

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

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