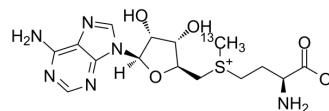


## S-Adenosyl-L-methionine-13C

<b>Cat. No.:</b>	HY-B0617S1
<b>CAS No.:</b>	74084-24-5
<b>Molecular Formula:</b>	C <sub>14</sub> <sup>13</sup> CH <sub>22</sub> N <sub>6</sub> O <sub>5</sub> S
<b>Molecular Weight:</b>	399.43
<b>Target:</b>	Endogenous Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	S-Adenosyl-L-methionine- <sup>13</sup> C is the <sup>13</sup> C labeled S-Adenosyl-L-methionine[1]. S-Adenosyl-L-methionine (S-Adenosyl methionine) is produced endogenously from methionine and ATP by action of the enzyme methionine adenosyltransferase and is an important orally active methyl group donor. S-Adenosyl-L-methionine is a dietary supplement with potent antidepressant effects, and has the potential for liver disease and osteoarthritis research[2][3][4].
<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]. G M Bressa. S-adenosyl-l-methionine (SAME) as antidepressant: meta-analysis of clinical studies. *Acta Neurol Scand Suppl*. 1994;154:7-14.
- [3]. Wadie I Najm, et al. S-adenosyl methionine (SAME) versus celecoxib for the treatment of osteoarthritis symptoms: a double-blind cross-over trial. [ISRCTN36233495]. *BMC Musculoskelet Disord*. 2004 Feb 265:6.
- [4]. Shelly C Lu, et al. S-adenosylmethionine in liver health, injury, and cancer. *Physiol Rev*. 2012 Oct92(4):1515-42.

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

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