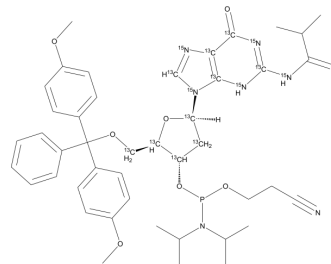


## DMT-dG(ib) Phosphoramidite-<sup>13</sup>C<sub>10</sub>,<sup>15</sup>N<sub>5</sub>

<b>Cat. No.:</b>	HY-W008848S
<b>CAS No.:</b>	2483830-16-4
<b>Molecular Formula:</b>	C <sub>34</sub> <sup>13</sup> C <sub>10</sub> H <sub>54</sub> N <sub>2</sub> <sup>15</sup> N <sub>5</sub> O <sub>8</sub> P
<b>Molecular Weight:</b>	854.81
<b>Target:</b>	Nucleoside Antimetabolite/Analog; DNA/RNA Synthesis
<b>Pathway:</b>	Cell Cycle/DNA Damage
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	DMT-dG(ib) Phosphoramidite- <sup>13</sup> C <sub>10</sub> , <sup>15</sup> N <sub>5</sub> is the <sup>13</sup> C and <sup>15</sup> N labeled DMT-dG(ib) Phosphoramidite[1]. DMT-dG(ib) Phosphoramidite is typically used in the synthesis of DNA[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]. James D Thorpe, et al. Mechanochemical Synthesis of Short DNA Fragments. *Chemistry*. 2020 Jul 22;26(41):8857-8861.

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

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