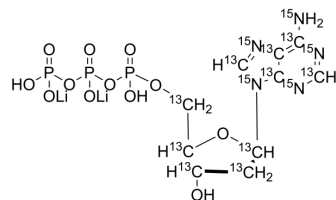


## 2'-Deoxyadenosine-5'-triphosphate-<sup>13</sup>C<sub>10</sub>, <sup>15</sup>N<sub>5</sub> dilithium

<b>Cat. No.:</b>	HY-136648S1
<b>Molecular Formula:</b>	<sup>13</sup> C <sub>10</sub> H <sub>14</sub> Li <sub>2</sub> <sup>15</sup> N <sub>5</sub> O <sub>12</sub> P <sub>3</sub>
<b>Molecular Weight:</b>	517.94
<b>Target:</b>	Isotope-Labeled Compounds; Endogenous Metabolite; DNA/RNA Synthesis
<b>Pathway:</b>	Others; Metabolic Enzyme/Protease; 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>	2'-Deoxyadenosine-5'-triphosphate- <sup>13</sup> C <sub>10</sub> , <sup>15</sup> N <sub>5</sub> (dATP- <sup>13</sup> C <sub>10</sub> , <sup>15</sup> N <sub>5</sub> ) dilithium is <sup>13</sup> C and <sup>15</sup> N-labeled 2'-Deoxyadenosine-5'-triphosphate (HY-136648). 2'-Deoxyadenosine-5'-triphosphate (dATP) is a nucleotide used in cells for DNA synthesis (or replication), as a substrate of DNA polymerase.
<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]. P J Romaniuk, A study of the mechanism of T4 DNA polymerase with diastereomeric phosphorothioate analogues of deoxyadenosine triphosphate. *J Biol Chem.* 1982 Jul 10;257(13):7684-8.

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

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