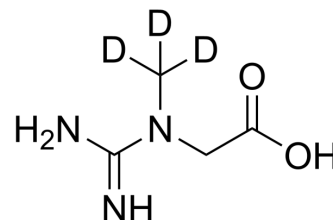


## Creatine-d<sub>3</sub>

Cat. No.:	HY-W010388S1
CAS No.:	143827-19-4
Molecular Formula:	C <sub>4</sub> H <sub>6</sub> D <sub>3</sub> N <sub>3</sub> O <sub>2</sub>
Molecular Weight:	134.15
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	<div>Powder</div> <div>-20°C 3 years</div> <div>4°C 2 years</div> <div>In solvent</div> <div>-80°C 6 months</div> <div>-20°C 1 month</div>



### BIOLOGICAL ACTIVITY

Description	Creatine-d <sub>3</sub> is the deuterium labeled Creatine[1]. Creatine, an endogenous amino acid derivative, plays an important role in cellular energy, especially in muscle and brain[2].
In Vitro	<p>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>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. Nouioua S, et al. Creatine deficiency syndrome. A treatable myopathy due to arginine-glycine amidinotransferase (AGAT) deficiency. *Neuromuscul Disord*. 2013 Aug;23(8):670-4.

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

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