Product Data Sheet

Creatine-d₃ hydrate

Cat. No.: HY-W010388AS CAS No.: 284664-86-4 Molecular Formula: $C_4H_8D_3N_3O_3$ Molecular Weight: 152.17

Target: **Endogenous Metabolite** Pathway: Metabolic Enzyme/Protease

Storage: Powder -20°C 3 years 4°C 2 years

> -80°C In solvent 6 months -20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

H₂O: 25 mg/mL (164.29 mM; ultrasonic and warming and heat to 60°C)

| Preparing Stock Solutions | Solvent Mass Concentration | 1 mg | 5 mg | 10 mg |
|------------------------------|-------------------------------|-----------|------------|------------|
| | 1 mM | 6.5716 mL | 32.8580 mL | 65.7160 mL |
| | 5 mM | 1.3143 mL | 6.5716 mL | 13.1432 mL |
| | 10 mM | 0.6572 mL | 3.2858 mL | 6.5716 mL |

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS

Solubility: 6.67 mg/mL (43.83 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Creatine-d₃ (hydrate) is a deuterium labeled Creatine hydrate. Creatine hydrate is pivotal in energy metabolism of muscle and brain cells, both in physiological and in pathological conditions[1].

REFERENCES

[1]. Balestrino M, et AL. Beyond sports: Efficacy and safety of creatine supplementation in pathological or paraphysiological conditions of brain and muscle. Med Res Rev. 2019:39(6):2427-2459.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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Page 2 of 2 www.MedChemExpress.com