# Choline Chloride-$^{13}C_3$

**Cat. No.:** HY-B1337S4

**Molecular Formula:** $C_2{}^{13}C_3H_{14}ClNO$

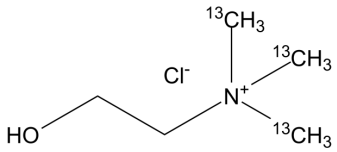
**Molecular Weight:** 142.6

**Target:** Cholinesterase (ChE)

**Pathway:** Neuronal Signaling

**Storage:** -20°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)




## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : ≥ 140 mg/mL (981.77 mM)

H2O : ≥ 100 mg/mL (701.26 mM)

* "≥" means soluble, but saturation unknown.

**Preparing Stock Solutions**

| Concentration \ Solvent \ Mass | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 7.0126 mL | 35.0631 mL | 70.1262 mL |
| 5 mM | 1.4025 mL | 7.0126 mL | 14.0252 mL |
| 10 mM | 0.7013 mL | 3.5063 mL | 7.0126 mL |

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

## BIOLOGICAL ACTIVITY

**Description**

Choline Chloride-$^{13}C_3$ is the $^{13}C$-labeled Choline (chloride). Choline chloride is an organic compound and a quaternary ammonium salt, an acyl group acceptor and choline acetyltransferase substrate, also is an important additive in feed especially for chickens where it accelerates growth.

**In Vitro**

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[1].

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;53(2):211-216.

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

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