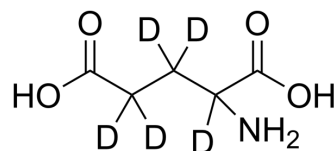


DL-Glutamic acid-d₅

| | | |
|---------------------------|--------------------------------------------------------------|----------------|
| Cat. No.: | HY-W041895S | |
| CAS No.: | 14341-79-8 | |
| Molecular Formula: | C ₅ H ₄ D ₅ NO ₄ | |
| Molecular Weight: | 152.16 | |
| Target: | Endogenous Metabolite; Isotope-Labeled Compounds | |
| Pathway: | Metabolic Enzyme/Protease; Others | |
| Storage: | Powder | -20°C 3 years |
| | In solvent | -80°C 6 months |
| | | -20°C 1 month |



SOLVENT & SOLUBILITY

In Vitro

H₂O : 25 mg/mL (164.30 mM; Need ultrasonic)
 DMSO : 1 mg/mL (6.57 mM; Need ultrasonic and warming)

| Preparing Stock Solutions | Solvent | | Mass | | |
|---------------------------|---------------|--|-----------|------------|------------|
| | Concentration | | 1 mg | 5 mg | 10 mg |
| | 1 mM | | 6.5720 mL | 32.8601 mL | 65.7203 mL |
| | 5 mM | | 1.3144 mL | 6.5720 mL | 13.1441 mL |
| | 10 mM | | 0.6572 mL | 3.2860 mL | 6.5720 mL |

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

BIOLOGICAL ACTIVITY

Description

DL-Glutamic acid-d₅ is the deuterium labeled DL-Glutamic acid. DL-Glutamic acid is the conjugate acid of Glutamic acid, which acts as a fundamental metabolite. Comparing with the second phase of polymorphs α and β L-Glutamic acid, DL-Glutamic acid presents better stability^[1].

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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