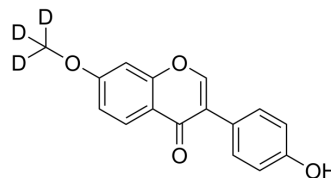


Isoformononetin-d₃

| | |
|--------------------|--|
| Cat. No.: | HY-N7501S |
| Molecular Formula: | C ₁₆ H ₉ D ₃ O ₄ |
| Molecular Weight: | 271.28 |
| Target: | Isotope-Labeled Compounds |
| Pathway: | Others |
| Storage: | 4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (368.62 mM; Need ultrasonic)

| Solvent | Mass | Concentration | | |
|---------------------------|-------|---------------|------------|------------|
| | | 1 mg | 5 mg | 10 mg |
| Preparing Stock Solutions | 1 mM | 3.6862 mL | 18.4311 mL | 36.8623 mL |
| | 5 mM | 0.7372 mL | 3.6862 mL | 7.3725 mL |
| | 10 mM | 0.3686 mL | 1.8431 mL | 3.6862 mL |

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

BIOLOGICAL ACTIVITY

Description

Isoformononetin-d₃ is the deuterium labeled Isoformononetin (HY-N7501). Isoformononetin is an analog of Daidzein (HY-N0019) and has immunoprotective effects. Isoformononetin inhibits the differentiation of Th17 and B-cells lymphopoiesis to promote osteogenesis in estrogen-deficient bone loss conditions^{[1][2]}.

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^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Mansoori MN, et al. Methoxyisoflavones formononetin and isoformononetin inhibit the differentiation of Th17 cells and B-cell lymphopoiesis to promote osteogenesis in estrogen-deficient bone loss conditions. *Menopause*. 2016 May;23(5):565-76.
- [2]. 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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