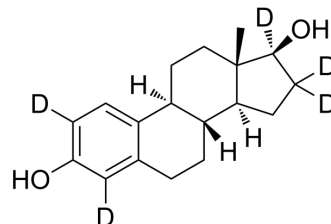


Estradiol-d₅

| | | | | | | | | | | | | | |
|---------------------------|--|----------|-------|---------|--|-----|---------|------------|-------|----------|--|-------|---------|
| Cat. No.: | HY-B0141S2 | | | | | | | | | | | | |
| CAS No.: | 221093-45-4 | | | | | | | | | | | | |
| Molecular Formula: | C ₁₈ H ₁₉ D ₅ O ₂ | | | | | | | | | | | | |
| Molecular Weight: | 277.41 | | | | | | | | | | | | |
| Target: | Estrogen Receptor/ERR; Endogenous Metabolite; Estrogen Receptor/ERR; Endogenous Metabolite | | | | | | | | | | | | |
| Pathway: | Vitamin D Related/Nuclear Receptor; Metabolic Enzyme/Protease | | | | | | | | | | | | |
| Storage: | <table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table> | Powder | -20°C | 3 years | | 4°C | 2 years | In solvent | -80°C | 6 months | | -20°C | 1 month |
| Powder | -20°C | 3 years | | | | | | | | | | | |
| | 4°C | 2 years | | | | | | | | | | | |
| In solvent | -80°C | 6 months | | | | | | | | | | | |
| | -20°C | 1 month | | | | | | | | | | | |



SOLVENT & SOLUBILITY

In Vitro

Ethanol : 20 mg/mL (72.10 mM; Need ultrasonic)

| Concentration | Mass | | |
|---------------|-----------|------------|------------|
| | 1 mg | 5 mg | 10 mg |
| 1 mM | 3.6048 mL | 18.0239 mL | 36.0477 mL |
| 5 mM | 0.7210 mL | 3.6048 mL | 7.2095 mL |
| 10 mM | 0.3605 mL | 1.8024 mL | 3.6048 mL |

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

BIOLOGICAL ACTIVITY

Description

Estradiol-d₅ is deuterium labeled Estradiol. Estradiol is a steroid sex hormone vital to the maintenance of fertility and secondary sexual characteristics in females. Estradiol upregulates IL-6 expression through the estrogen receptor β (ERβ) pathway^{[1][2][3]}.

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

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

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