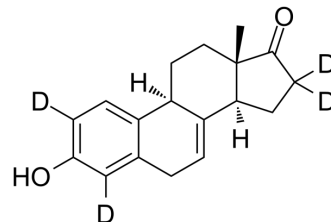


Equilin-d4

Cat. No.:	HY-B1176S
CAS No.:	285979-79-5
Molecular Formula:	C ₁₈ H ₁₆ D ₄ O ₂
Molecular Weight:	272.37
Target:	Estrogen Receptor/ERR
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Equilin-d4 (7-Dehydroestrone-d4) is the deuterium labeled Equilin. Equilin (7-Dehydroestrone) is an important member of the large group of oestrogenic substances and is chemically related to menformon (oestrone). Equilin increases the growth of cortical neurons via an NMDA receptor-dependent mechanism ^{[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 ^[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.
- [2]. David K, et al. Some biological properties of equilin. *Biochem J.* 1935;29(2):371-377.
- [3]. Brinton RD, et al. Equilin, a principal component of the estrogen replacement therapy premarin, increases the growth of cortical neurons via an NMDA receptor-dependent mechanism. *Exp Neurol.* 1997;147(2):211-220.
- [4]. Ito F, et al. Equilin in conjugated equine estrogen increases monocyte-endothelial adhesion via NF-κB signaling. *PLoS One.* 2019;14(1):e0211462. Published 2019 Jan 30.

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

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