
Product Data Sheet

Product Name: 6 β -hydroxy Dexamethasone

Cat. No.: GC18335

Chemical Properties

Cas. No. 55879-47-5

Chemical Name 9-fluoro-6 β ,11 β ,17,21-tetrahydroxy-16 α -methyl-pregna-1,4-diene-3,20-dioneSMILES O=C1C=C[C@@]2(C)C([C@H](O)C[C@]3([H])[C@]2(F)[C@@H](O)C[C@@]4(C)[C@@]3([H])C[C@@H](C)[C@]4(O)C(CO)=O)=C1Formula C₂₂H₂₉FO₆ M.Wt 408.5

Solubility Methanol: slightly soluble Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure **Background**

6 β -hydroxy Dexamethasone is a metabolite of dexamethasone that is more hydrophilic than the parent compound. Dexamethasone is metabolized by CYP3A4; therefore, quantification of the dexamethasone metabolites, 6 α - and 6 β -hydroxy dexamethasone, can be used to determine CYP3A4 enzyme activity in humans., The formation of 6-hydroxy dexamethasone metabolites is species-specific, with hamsters producing the highest amount. In rats, dexamethasone hydroxylation is sex-specific, with male rats producing metabolites in similar ratios to humans and female rats producing fewer hydroxylated metabolites than male rats.

References:

[1].Minagawa, K., Kasuya, Y., Baba, S., et al. Identification and quantification of 6 beta-hydroxydexamethasone as a major urinary metabolite of dexamethasone in man Steroids 47(2-3), 175-188 (1986).

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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- [2].Gentile, D.M., Tomlinson, E.S., Maggs, J.L., et al. Dexamethasone metabolism by human liver in vitro. Metabolite identification and inhibition of 6-hydroxylation J. Pharmacol. Exp. Ther. 277(1), 105-112 (1996).
- [3]. Zurbonsen, K., Bressolle, F., Solassol, I., et al. Simultaneous determination of dexamethasone and 6 β -hydroxydexamethasone in urine using solid-phase extraction and liquid chromatography: Applications to in vivo measurement of cytochrome P450 3A4 activity J. Chromatogr. B Analyt. Technol. Biomed. Life Sci. 804(2), 421-429 (2004).
- [4].Tomlinson, E.S., Maggs, J.L., Park, B.K., et al. Dexamethasone Metabolism in vitro: Species differences J. Steroid Biochem. Mol. Biol. 62(4), 345-352 (1997).

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