# PRODUCT INFORMATION



## Estriol 3-β-D-Glucuronide (sodium salt)

Item No. 14827

CAS Registry No.: 15087-06-6

Formal Name: 16α,17β-dihydroxyestra-1,3,5(10)-

trien-3-yl, β-D-glucopyranosiduronic

acid, monosodium salt

Synonym: Estriol sodium 3-glucuronate

MF:  $C_{24}H_{32}O_9$  • Na

FW: 487.5 **Purity:** ≥95% Supplied as: A solid Storage: -20°C Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### **Laboratory Procedures**

Estriol  $3-\beta$ -D-glucuronide (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the estriol 3-β-D-glucuronide (sodium salt) in the solvent of choice, which should be purged with an inert gas. Estriol 3-β-D-glucuronide (sodium salt) is slightly soluble in DMSO and methanol.

#### Description

Estriol 3-β-D-glucuronide is a metabolite of estriol (Item No. 10006484). It is formed from estriol by the UDP-glucuronosyltransferase (UGT) isoform UGT1A10. Estriol 3-β-D-glucuronide binds to basolateral and canalicular liver plasma membranes with  $K_d$  values of 85 and 164  $\mu$ M, respectively.<sup>2</sup> It competitively inhibits the hydrolysis of 4-methylumbelliferyl- $\beta$ -D-glucuronide (4Mu-GlcU; Item No. 17203) and is a substrate for hydrolysis by Klotho-human IgG1 Fc protein (KLFc).3

#### References

- 1. Sneitz, N., Vanhermo, M., Mosorin, J., et al. Regiospecificity and stereospecificity of human UDP-glucuronosyltransferases in the glucuronidation of estriol, 16-epiestriol, 17-epiestriol, and 13-epiestradiol. Drug Metab. Dispos. 41(3), 582-591 (2013).
- 2. Changchit, A., Durham, S.K., and Vore, M. Characterization of [<sup>3</sup>H]estradiol-17β-(β-D-glucuronide) binding sites in basolateral and canalicular liver plasma membranes. Biochem. Pharmacol. 40(6), 1219-1225 (1990).
- 3. Tohyama, O., Imura, A., Freund, J.N., et al. Klotho is a novel β-glucuronidase capable of hydrolyzing steroid β-glucuronides. J. Biol. Chem. **279(11)**, 9777-9784 (2004).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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## **CAYMAN CHEMICAL**

1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.**CAYMANCHEM**.COM