

Product Data Sheet

Product Name: Pregnanediol-3-Glucuronide

Cat. No.: GC41266

Chemical Properties

Cas. No. 1852-49-9

Chemical Name (3 α ,5 β ,20S)-20-hydroxypregnan-3-yl, β -D-glucopyranosiduronic acid

SMILES C[C@@]12[C@@](CC[C@]3([H])[C@]2([H])CC[C@@]4(C)[C@@]3([H])CC[C@@]4([C@H](C)O)[H])([H])C[C@H](O[C@]5([H])O[C@H](C(O)=O)[C@@H](O)[C@H](O)[C@H]5O)CC1

Formula C₂₇H₄₄O₈

M.Wt 496.6

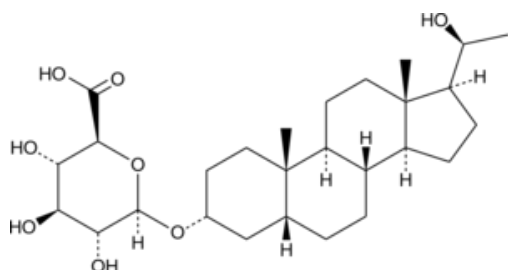
Solubility 20mg/mL in ethanol

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

Pregnanediol-3-glucuronide (PDG) is the primary urinary metabolite of the steroid hormone progesterone. [1] Levels of PDG in the urine correlate to levels of progesterone measured in the serum. [1] [2] Analysis of urinary PDG has been used to detect ovulatory and anovulatory menstrual cycles in women as well as to assess the fertility of ovulatory cycles. [3] [4]

Reference:

[1]. O'Connor, K.A., Brindle, E., Holman, D.J., et al. Urinary estrone conjugate and pregnanediol 3-

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

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glucuronide enzyme immunoassays for population research. Clin. Chem. 49(7), 1139-1148 (2003).

[2]. Munro, C.J., Stabenfeldt, G.H., Cragun, J.R., et al. Relationship of serum estradiol and progesterone concentrations to the excretion profiles of their major urinary metabolites as measured by enzyme immunoassay and radioimmunoassay. Clin. Chem. 37(6), 838-844 (1991).

[3]. Kassam, A., Overstreet, J.W., Snow-Harter, C., et al. Identification of anovulation and transient luteal function using a urinary pregnanediol-3-glucuronide ratio algorithm. Environ. Health Perspect. 104(4), 408-413 (1996).

[4]. Blackwell, L.F., Cooke, D.G., and Brown, S. The use of estrone-3-glucuronide and pregnanediol-3-Glucuronide Excretion Rates to Navigate the Continuum of Ovarian Activity. Front. Public Health 6:153, (2018).

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