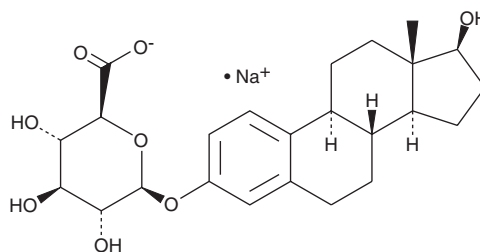


PRODUCT INFORMATION

Estradiol 3-(β -D-Glucuronide) (sodium salt)

Item No. 16155

CAS Registry No.:	14982-12-8
Formal Name:	(17 β)-17-hydroxyestra-1,3,5(10)-trien-3-yl β -D-glucopyranosiduronic acid, monosodium salt
Synonyms:	E23G, β -Estradiol 3-(β -D-Glucuronide), 17 β -Estradiol 3-(β -D-Glucuronide), 17 β -Oestradiol 3-(β -D-Glucuronide)
MF:	C ₂₄ H ₃₁ O ₈ • Na
FW:	470.5
Purity:	≥95%
UV/Vis.:	λ_{\max} : 277 nm
Supplied as:	A crystalline 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

Estradiol 3-(β -D-glucuronide) (E₂3G) (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the E₂3G (sodium salt) in the solvent of choice, which should be purged with an inert gas. E₂3G (sodium salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of E₂3G (sodium salt) in these solvents is approximately 20 and 10 mg/ml, respectively.

E₂3G (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, E₂3G (sodium salt) should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. E₂3G (sodium salt) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

E₂3G is a non-cholestatic regioisomer of the estrogen metabolite, estradiol 17-(β -D-glucuronide) (E₂17G; Item No. 16156).^{1,2} It acts as a substrate for multidrug resistance protein 2 (MRP2; K_m = 122 μ M), competing with E₂17G for MRP2-mediated transport (IC₅₀ = 14.2 μ M).^{2,3} E₂3G has been reported to inhibit E₂17G transport through rat organic anion-transporting polypeptide 1 with a K_i value of 9.7 μ M, but is a low-affinity inhibitor of both MRP4 and MRP7 (IC₅₀s = ~ 100 μ M).²

References

1. Loe, D.W., Almquist, K.C., Cole, S.P., *et al.* ATP-dependent 17 β -estradiol 17-(β -D-glucuronide) transport by multidrug resistance protein (MRP). Inhibition by cholestatic steroids. *J. Biol. Chem.* **271**(16), 9683-9689 (1996).
2. Gerk, P.M., Li, W., and Vore, M. Estradiol 3-glucuronide is transported by the multidrug resistance-associated protein 2 but does not activate the allosteric site bound by estradiol 17-glucuronide. *Drug Metab. Dispos.* **32**(10), 1139-1145 (2004).
3. Gerk, P.M., Li, W., Megaraj, W., *et al.* Human multidrug resistance protein 2 transports the therapeutic bile salt tauroursodeoxycholate. *J. Pharmacol. Exp. Ther.* **320**(2), 893-899 (2007).

WARNING

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

SAFETY DATA

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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