

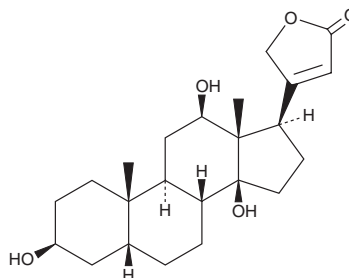
PRODUCT INFORMATION



Digoxigenin

Item No. 30817

CAS Registry No.: 1672-46-4
Formal Name: (5 β)-3 β ,12 β ,14-trihydroxy-card-20(22)-enolide
Synonyms: DIG, Lanadigenin, Lanadigigenin
MF: C₂₃H₃₄O₅
FW: 390.5
Purity: $\geq$ 95%
Supplied as: A solid
Storage: -20°C
Stability: $\geq$ 4 years



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

Laboratory Procedures

Digoxigenin is supplied as a solid. A stock solution may be made by dissolving the digoxigenin in the solvent of choice, which should be purged with an inert gas. Digoxigenin is soluble ($\geq$ 10 mg/ml) in DMSO. Digoxigenin is sparingly soluble (1-10 mg/ml) in ethanol.

Description

Digoxigenin is a Na⁺/K⁺-ATPase inhibitor and an active metabolite of digoxin (Item No. 22266).^{1,2} It is formed from digoxin by cytochrome P450 (CYP) isoform 3A (CYP3A) *via* digoxigenin bisdigitoxoside (Item No. 35356) and digoxigenin monodigitoxoside (Item No. 21699) intermediates. Digoxigenin inhibits Na⁺/K⁺-ATPase isoforms α 1 β 1 and α 2 β 1 (K_i = 97 and 90 nM, respectively).¹ It is also an antagonist of human-ether-a-go-go (hERG), also known as K_v11.1 (IC₅₀ = 206.3 nM).³ Digoxigenin (100 μ M) decreases intraocular pressure induced by 4-aminopyridine (Item No. 18511) in rabbits.¹

References

1. Katz, A., Tal, D.M., Heller, D., *et al.* Digoxin derivatives with enhanced selectivity for the α 2 isoform of Na,K-ATPase: Effects on intraocular pressure in rabbits. *J. Biol. Chem.* **289**(30), 21153-21162 (2014).
2. Salphati, L. and Benet, L.Z. Metabolism of digoxin and digoxigenin digitoxosides in rat liver microsomes: Involvement of cytochrome P4503A. *Xenobiotica* **29**(2), 171-185 (1999).
3. Wang, L., Wible, B.A., Wan, X., *et al.* Cardiac glycosides as novel inhibitors of human ether-a-go-go-related gene channel trafficking. *J. Pharmacol. Exp. Ther.* **320**(2), 525-534 (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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