

Hello Bio, Inc.
304 Wall St., Princeton, NJ 08540 USA

T. 609-683-7500
F. 609-228-4994

customercare-usa@m2stage.hellobio.com



DATASHEET

Digoxin

Product overview

Name	Digoxin
Cat No	HB1138
Biological action	Inhibitor
Purity	>98%
Description	Na ⁺ / K ⁺ ATPase α subunit inhibitor. Antiviral.

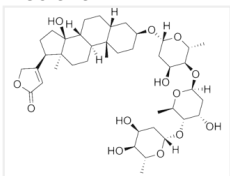
Biological Data

Biological description	Na ⁺ / K ⁺ ATPase α subunit inhibitor (IC ₅₀ = 2.69 μ M) which increases regulator of G protein signaling 2 (RGS2) protein levels (EC ₅₀ = 83 nM). Exhibits little or no effect on RGS4. Also potent HIV-1 replication inhibitor and exhibits anti-MERS-CoV activity in Vero cells in vitro.
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Solubility & Handling

Storage instructions	Room temperature
Solubility overview	Soluble in DMSO (100mM)
Important	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

Chemical Data

Chemical name	4-[(3S,5R,8R,9S,10S,12R,13S,14S)-3-[(2S,4S,5R,6R)-5-[(2S,4S,5R,6R)-5-[(2S,4S,5R,6R)-4,5-dihydroxy-6-methyl-oxan-2-yl]oxy-4-hydroxy-6-methyl-oxan-2-yl]oxy-4-hydroxy-6-methyl-oxan-2-yl]oxy-12,14-dihydroxy-10,13-dimethyl-1,2,3,4,5,6,7,8,9,11,12,15,16,17-tetradecahydrocyclopenta[a]phenanthrene-17-yl]-5H-furan-2-one
Molecular Weight	780.949
Chemical structure	
Molecular Formula	C ₄₁ H ₆₄ O ₁₄
CAS Number	20830-75-5
PubChem identifier	2724385
SMILES	<chem>O=C1OC(C(=C1)[C@H]2CC[C@@]8(O)[C@]2(C)[C@H](O)C[C@H]7[C@H]8CC[C@H]6[C@]7(C)CC[C@H](O[C@@H]5O[C@H](C)[C@@H](O[C@@H]4O[C@@H]([C@@H](O[C@@H]3O[C@@H]([C@@H](O)[C@@H](O)C3)C)[C@@H](O)C4)C)[C@@H](O)C5)C6</chem>
InChi	InChI=1S/C41H64O14/c1-19-36(47)28(42)15-34(50-19)54-38-21(3)52-35(17-30(38)44)55-37-20(2)51-33(16-29(37)43)53-24-8-10-39(4)23(13-24)6-7-26-27(39)14-31(45)40(5)25(9-11-41(26,40)48)22-12-32(46)49-18-22/h12,19-21,23-31,33-38,42-45,47-48H,6-11,13-18H2,1-5H3/t
InChiKey	LTMHDMANZUIPE-PUGKRICDSA-N
MDL number	MFCD00003674

References

Digoxin in the management of cardiovascular disorders.

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PubMedID [15210613](#)

Cardiotonic steroids stabilize regulator of G protein signaling 2 protein levels.

Sjögren B *et al* (2012) *Mol Pharmacol* 82(3)

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Digoxin suppresses HIV-1 replication by altering viral RNA processing.

Wong RW *et al* (2013) *PLoS Pathog* 9(3)

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Inhibition of Na,K-ATPase by oleandrin and oleandrigenin, and their detection by digoxin immunoassays.

Jortani SA *et al* (1996) *Clin Chem* 42(10)

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Drug repurposing for new, efficient, broad spectrum antivirals

Pacheco et al (2019) *Virus Res.* 264

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