Digoxin (3301): sc-57081



The Power to Question

BACKGROUND

Digoxin is a cardiac glycoside that decreases the conduction of electrical impulses through the AV node in the heart. It also increases the force of heart contractions by binding to and inhibiting the Na+/K+ ATPase pump, which causes an increase in the level of sodium ions in the myocytes, thereby leading to a rise in the level of calcium ions. Digoxin is expressed in the foxglove plant digitalis and is then extracted for clinical use to improve the pumping ability of the heart in congestive heart failure (CHF) and to treat patients with high blood pressure. It is also used to help normalize some dysrhythmias (abnormal types of heartbeat) and to stabilize atrial fibrillation and atrial flutter with rapid ventricular response. Digoxin has a half life of approximately 36 hours with effective plasma levels at 1-2.6 nmol/l.

REFERENCES

- Schinkel, A.H., Wagenaar, E., van Deemter, L., Mol, C.A. and Borst, P. 1995. Absence of the mdr1a P-glycoprotein in mice affects tissue distribution and pharmacokinetics of Dexamethasone, Digoxin, and Cyclosporin A. J. Clin. Invest. 96: 1698-1705.
- Bagherpour, A., Amri Maleh, P. and Saghebi, R. 2006. Accidental intrathecal administration of Digoxin. Anesth. Analg. 103: 502-503.
- 3. Formiga, F., Chivite, D., Manito, N. and Pujol, R. 2006. Use of Digoxin in patients admitted because of heart failure. Med. Clin. 127: 397.
- 4. Francke, D.E. 2006. Bioavailability of Digoxin. Ann. Pharmacother. 40: 1185.
- Hemels, M.E., Van Noord, T., Crijns, H.J., Van Veldhuisen, D.J., Veeger, N.J., Bosker, H.A., Wiesfeld, A.C., Van den Berg, M.P., Ranchor, A.V. and Van Gelder, I.C. 2006. Verapamil versus Digoxin and acute versus routine serial cardioversion for the improvement of rhythm control for persistent atrial fibrillation. J. Am. Coll. Cardiol. 48: 1001-1009.
- Hess, M.L. 2006. Premise: Digoxin is a drug looking for its place in the museum of medical history. Prog. Cardiovasc. Nurs. 21: 156-157.
- 7. Hussain, Z., Swindle, J. and Hauptman, P.J. 2006. Digoxin use and Digoxin toxicity in the post-DIG trial era. J. Card. Fail. 12: 343-346.
- 8. Pervaiz, M.H., Dickinson, M.G. and Yamani, M. 2006. Is Digoxin a drug of the past? Cleve. Clin. J. Med. 73: 821-832.
- 9. Wong, B. and Flattery, M.P. 2006. Use of Digoxin in the treatment of chronic heart failure. Prog. Cardiovasc. Nurs. 21: 158-161.

SOURCE

Digoxin (3301) is a mouse monoclonal antibody raised against Digoxin, conjugated to BSA.

PRODUCT

Each vial contains 100 μg lgG_1 in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Digoxin (3301) is recommended for detection of Digoxin of Digoxin origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); not recommended for detection of digitoxin .

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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