



Digoxigenin (1.A2.1): sc-70963

BACKGROUND

Digoxigenin is a cardenolide steroid hapten that is found exclusively in the flowers and leaves of the plants *Digitalis purpurea* and *Digitalis lanata*. It is obtained by hydrolysis of the molecule Digoxin. Digoxigenin has a molecular weight of 390.513 g/mol. It increases intracellular sodium levels, which may be beneficial in failing human hearts. It is also useful in research labs since it can be used as a molecular probe to detect both DNA and RNA. Digoxigenin is easily attached to either 5' or 3' ends of oligonucleotides by chemical modifications, making it convenient to use in diverse applications.

REFERENCES

1. Monji, N., Ali, H. and Castro, A. 1980. Quantification of Digoxin by enzyme immunoassay: synthesis of a maleimide derivative of Digoxigenin succinate for enzyme coupling. *Experientia* 36: 1141-1143.
2. Weigel, L.M., Belisle, J.T., Radolf, J.D. and Norgard, M.V. 1994. Digoxigenin-ampicillin conjugate for detection of penicillin-binding proteins by chemiluminescence. *Antimicrob. Agents Chemother.* 38: 330-336.
3. Blais, C., Drapeau, G., Meloche, S., Morais, R. and Adam, A. 1998. Digoxigenin-labeled peptides for the immunological quantification of intra-cellular signaling proteins: application to the MAP kinase kinase isoform MEK2. *BioTechniques* 23: 1098-1103.
4. Hopman, A.H., Ramaekers, F.C. and Speel, E.J. 1998. Rapid synthesis of Biotin-, Digoxigenin-, trinitrophenyl-, and fluorochrome-labeled tyramides and their application for *in situ* hybridization using CARD amplification. *J. Histochem. Cytochem.* 46: 771-777.
5. Davia, K. and Harding, S.E. 1999. Post-rest contraction amplitude in myocytes from failing human ventricle. *Basic Res. Cardiol.* 93 Suppl 1: 33-37.
6. Jalabi, W., Cerghet, M., Skoff, R.P. and Ghandour, M.S. 2003. Detection of oligodendrocytes in tissue sections using PCR synthesis of Digoxigenin-labeled probes. *J. Histochem. Cytochem.* 51: 913-919.
7. Kösel, S., Lücking, C.B., Egensperger, R. and Graeber, M.B. 2003. Nonradioactive PCR sequencing using Digoxigenin. *Methods Mol. Biol.* 226: 347-354.
8. Gill, P., Forouzandeh, M., Rahbarzadeh, F., Ramezani, R. and Rasaei, M.J. 2006. Production of anti-Digoxigenin antibody HRP conjugate for PCR-ELISA DIG detection system. *J. Immunoassay Immunochem.* 27: 303-318.
9. Neuert, G., Albrecht, C., Pamir, E. and Gaub, H.E. 2006. Dynamic force spectroscopy of the Digoxigenin-antibody complex. *FEBS Lett.* 580: 505-509.

SOURCE

Digoxigenin (1.A2.1) is a mouse monoclonal antibody raised against Digoxigenin.

PRODUCT

Each vial contains 50 µg IgG₁ in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Digoxigenin (1.A2.1) is recommended for detection of free and bound Digoxigenin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:2500).

STORAGE

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

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.