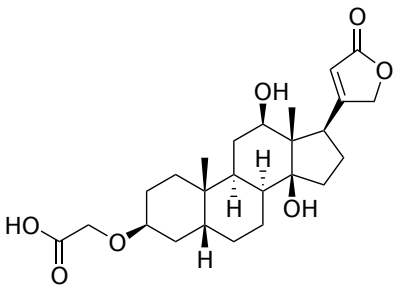
Digoxigenin C2 acid

Catalog Number: 3509
Unit Size: 5 mg

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	448.56
Soluble In	DMSO
Chemical Structure	

Spectral Properties

Excitation Wavelength	N/A
Emission Wavelength	N/A

Applications

Digoxigenin (DIG) is a steroid found exclusively in the flowers and leaves of the plants Digitalis purpurea, Digitalis orientalis, and Digitalis lanata (foxgloves). It is attached to sugars, forming glycosides such as digoxin and lanatoside C. In biological detections, DIG serves as a hapten, a small molecule with high antigenicity. Similar to other popular haptens like 2,4-dinitrophenol (DNP), biotin, and fluorescein, DIG can be readily conjugated into biomolecules (such as proteins and nucleic acids) for a variety of biological detections and tests. It is useful for immunohistochemistry and in situ hybridization. For example, DIG can be conjugated to a single species of RNA nucleoside triphosphate (typically uridine) during RNA synthesis, creating sensitive non-radioactive riboprobes to detect nucleic acids in plants and animals. These riboprobes can detect as little as 1 µg of plasmid DNA. Anti-digoxigenin antibodies have high affinities and are specifically used in various biological immuno-assays, including ELISA.