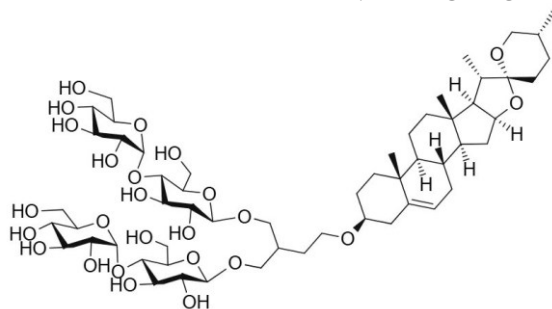


Technical Data Sheet GDN (Glyco-Diosgenin)

Catalog Number : GDN01, GDN02, GDN03, GDN04



Item	Specification
Product Description	Synthetic drop-in substitute for Digitonin • glyco-diosgenin
Molecular Formula	C ₅₆ H ₉₂ O ₂₅
CAS Number	1402423-29-3
Formula Weight	1165.31
CMC (H ₂ O)	~ 18 μM (0.0021%)
Purity	≥ 99 (by HPLC analysis)
pH	5-8 (1% solution in water)
Solubility	≥ 5 % (in water at 20°C)
Conductance	< 100 μS (5% solution in water)

Product Description

GDN (glyco-diosgenin) is a synthetic non-ionic detergent composed of a rigid sterol-based (diosgenin) hydrophobic tail and a di-maltose hydrophilic head group. It is a synthetic drop-in substitute for Digitonin. Unlike natural Digitonin extracted from *Digitalis purpurea*, GDN is produced synthetically, free of toxic byproducts such as digitoxin and digoxin, with no batch-to-batch variation, a lower critical micelle concentration (CMC), and superior water solubility.

Transportation and Storage

- Store protected from light and moisture; recommended storage temperature: -20 C.
- Ship at ambient temperature.
- Stable as a powder; aliquot stock solutions and store at -20 C. Avoid repeated freeze-thaw cycles.

Applications

This product meets a variety of membrane protein research needs, including but not limited to:

- Solubilization, extraction, and purification of membrane proteins (direct substitute for Digitonin)
 - Single-particle cryo-EM sample preparation (GPCRs, ion channels, transporters, etc.)
 - Lipidic cubic phase (in meso / LCP) crystallization
 - Maintenance of membrane protein solution stability and functional studies
- In Vitro Assays: Used for in vitro bioluminescence detection and quantitative determination of luciferase expression

Notice

1. To ensure the safety and health of operators, laboratory coats and disposable gloves must be worn throughout the entire experimental procedure.
2. Certain technical information provided with this product is intended for customer reference, academic communication, and scientific research purposes only. Our company does not warrant the absolute authority or completeness of the information provided.

3. This product is for research use only. It is strictly prohibited for use in clinical diagnosis, treatment, food, pharmaceuticals, or any other applications involving human use. Do not store this product in ordinary residential premises.