

## Product Data Sheet

Product Name: Glyco-diosgenin

Cat. No.: GC60879

### Chemical Properties

Cas. No. 1402423-29-3

SMILES C[C@@]([C@@]1([H])C2)(CC[C@@]3([H])[C@@]1([H])CC=C(C4)[C@@]3(CC[C@@H]4OCCC(CO[C@@H]([C@@H]([C@H]5O)O)O[C@@H]([C@H]5O[C@H]([C@@H]([C@H]6O)O)O[C@@H]([C@H]6O)CO)CO)[C@@H]([C@@H]([C@H]7O)O)O[C@@H]([C@H]7O[C@H]([C@@H]([C@H]8O)O)O[C@@H]([C@H]8O)CO)CO)C)[C@]9([H])[C@@]2([H])O[C@@](CC[C@H]%10C)(OC%10)[C@H]9C

Formula C<sub>56</sub>H<sub>92</sub>O<sub>25</sub>

M.Wt 1165.31

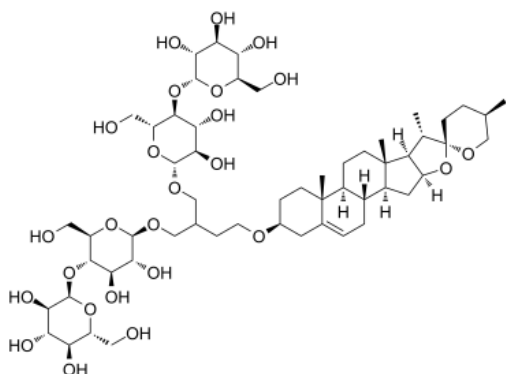
Solubility DMSO: 100 mg/mL (85.81 mM)

Storage 4°C, protect from light

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

### Structure



### Background

Glyco-diosgenin is a synthetic surfactant and detergent, which is used to extract proteins from

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membranes for structural and functional studies<sup>[1]</sup>. Glyco-diosgenin is widely used to stabilize various membrane proteins in solutions outside the lipid bilayer<sup>[2]</sup>. Glyco-diosgenin can be used for purifying the Escherichia coli TatBC complex and facilitating the binding of the complex to the precursor protein<sup>[3]</sup>.

### References:

- [1] van Dalsen L, Weichert D, Caffrey M. In meso crystallogenes. Compatibility of the lipid cubic phase with the synthetic digitonin analogue, glyco-diosgenin[J]. Applied Crystallography, 2020, 53(2): 530-535.
- [2] Ehsan M, Wang H, Katsube S, et al. Glyco-Steroidal Amphiphiles (GSAs) for Membrane Protein Structural Study[J]. ChemBioChem, 2022, 23(7): e202200027.
- [3] Wojnowska M, Gault J, Yong S C, et al. Precursor–Receptor Interactions in the Twin Arginine Protein Transport Pathway Probed with a New Receptor Complex Preparation[J]. Biochemistry, 2018, 57(10): 1663-1671.

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