
Product Data Sheet

Product Name: Laminaran

Cat. No.: GC39259

Chemical Properties

Cas. No. 9008-22-4

SMILES OC[C@H]1OC(O[C@H]2[C@H](O)[C@@H](CO)OC(O[C@@H]3[C@@H](O)C(O[H])O[C@H](CO)[C@H]3O)[C@@H]2O)[C@H](O)[C@@H](O)[C@@H]1O.[n]

Formula C₁₈H₃₂O₁₆

M.Wt

Solubility DMSO: 100 mg/mL; Water: ≥6.25 mg/mL

Storage Store at -20°C

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**

Laminaran is a neutral water-soluble β-1-3-glucan and a typical ligand for Dectin-1 isolated from the brown alga *D. dichotoma*, has potent immunomodulating, radioprotective, and anticancer activities[1]. Laminaran is made up of β (1→3)-glucan with β (1→6)-branches and can be catalyzed by enzymes such as laminarinase (EC 3.2.1.6) that breaks the β (1→3) bonds[2]. Laminaran is a promising immune stimulatory molecule for use in cancer immunotherapy[3].

References:

[1]. Malyarenko OS, et al. Laminaran from brown alga *Dictyota dichotoma* and its sulfated derivative as radioprotectors and radiosensitizers in melanoma therapy. *Carbohydr Polym.* 2019 Feb 15;206:539-547. [2]. Laminaran [3]. Song K, et al. Laminarin promotes anti-cancer immunity by the maturation of dendritic cells. *Oncotarget.* 2017 Jun 13;8(24):38554-38567.

Caution: Product has not been fully validated for medical applications. For research use only.

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