

Product Data Sheet

Product Name: α -Cyclodextrin (hydrate)

Cat. No.: GC48276

Chemical Properties

Cas. No. 51211-51-9

SMILES OC[C@H]1(O[C@@](O[C@]([C@@H]1O)([H])[C@H](O[C@@](O[C@]([C@@H]2O)([H])[C@H](O[C@@](O[C@@]3([H])[C@@H]4O)([H])[C@@H]2O)CO)([H])[C@@H]1O)CO)([H])[C@@H]5O[C@](O[C@](O[C@@H]6CO)([H])[C@@H]([C@H]([C@]6([H])O[C@](O[C@@H]7CO)([H])[C@@H]([C@H]([C@]7([H])O[C@](O[C@@H]3CO)([H])[C@@H]4O)O)O)O)([H])[C@@H]5O.O

Formula C₃₆H₆₀O₃₀.XH₂O

M.Wt 972.8

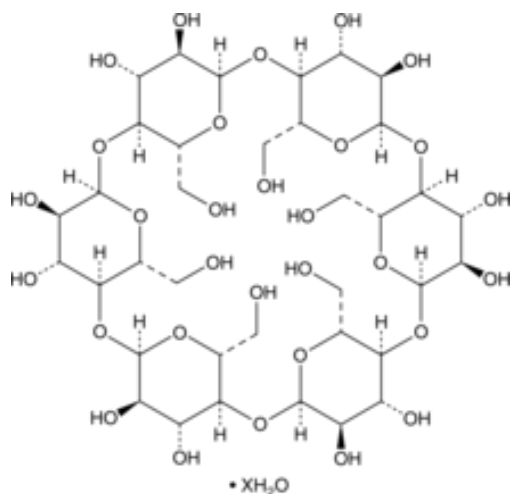
Solubility DMSO: 5 mg/ml, PBS (pH 7.2): 5 mg/ml

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

α -Cyclodextrin (α -CD) is a saccharide comprised of six glucose subunits linked by α -1,4 bonds, which results in a cone-shaped molecule.¹ It contains a hydrophobic interior and hydrophilic exterior,

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which allow it to form inclusion complexes with wide variety of molecules, conferring enhanced solubility and stabilization to the molecules. α -CD has commonly been used in the separation and purification of chemicals on an industrial scale.^{1,2} Formulations containing α -CD have been used in the pharmaceutical industry to improve the physical and chemical properties of compounds, the food industry as flavor carriers and stabilizers in processed and ultra-processed foods and certain beverages, as well as in other industrial applications.

1.Li, S., and Purdy, W.C.Cyclodextrins and their applications in analytical chemistryChem. Rev.92(6)1457-1470(1992) 2.Astray, G., Gonazalez-Barreiro, C., Mejuto, J.C., et al.A review on the use of cyclodextrins in foodsFood Hydrocolloids23(7)1631-1640(2009)

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