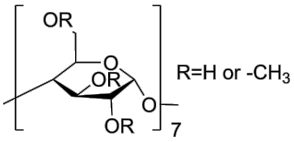
Methyl-β-cyclodextrin

货号: B26663



产品信息

生物活性	Methyl-β-cyclodextrin (Methyl-beta-cyclodextrin) is a cyclic heptasaccharide used to deliver hydrophobic drugs based on its property of solubilizing non-polar substances. Methyl-β-cyclodextrin is also extensively used as a cholesterol-depleting reagent. Methyl-β-cyclodextrin strongly reduces clathrin-dependent endo cytosis. Methyl-β-cyclodextrin blocks cell migrasome formation.
CAS	128446-36-6
中文名称	甲基-β-环糊精
分子量	1310 (Average)
体外研究	Methyl-β-cyclodextrin is extensively used to increase the permeability of cells, and thereby increase the u ptake of small molecules such as glucose and nano-particles. Cyclodextrins are a family of cyclic oligosaccharides with a hydrophilic outer surface and a lipophilic centr al cavity. Cyclodextrins molecules are relatively large with a number of hydrogen donors and acceptors a nd, thus in general, they do not permeate lipophilic membranes. In the pharmaceutical industry, cyclodex trins have mainly been used as complexing agents to increase aqueous solubility of poorly soluble drugs and to increase their bioavailability and stability. Cyclodextrins are used in pharmaceutical applications fo r numerous purposes, including improving the bioavailability of drugs. Methyl-β-cyclodextrin quickly induces caspase-dependent apoptosis in PEL cells via cholesterol depletion from the plasma membrane. Methyl-β-cyclodextrin inhibits the growth of all PEL cell lines in a dose-depen dent manner. The IC_{50} is 3.33-4.23 mM in each cell line. Methyl-β-cyclodextrin is a highly water soluble cyclic heptasaccharide consisting of a β-glucopyranose uni t, has been reported as the most effective agent for the depletion of cholesterol from cells among the vari ous cholesterol-depleting agents. **The accuracy of these methods have not been independently confirmed. They are for referenc e only.**
体内研究	
形式	Solid
运输条件	Room temperature in continental US; may vary elsewhere.
保存条件	
溶解性	In Vitro: **DMSO : ≥ 100 mg/mL** **H_2O : ≥ 50 mg/mL** *"≥" means soluble, but saturation unknown.

纯度	99.95%