Product Data Sheet

Chemical Properties

**Product Name:** Pravastatin sodium

**Cas No.:** 81131-70-6

**M.Wt:** 446.51

**Formula:** C23H35O7.Na

**Chemical Name:** sodium;(3R,5R)-3,5-dihydroxy-7-[(1S,2S,6S,8S)-6-hydroxy-2-methyl-8-[(2S)-2-methylbutanoyl]oxy-1,2,6,7,8,8a-hexahydronaphthalen-1-yl]heptanoate

**Canonical SMILES:** CCC(C)(=O)OC1CC(C=C2C(C=C2)CCC(CC(CC(-O)[O-])O)O)O.[Na+]  

**Solubility:** >13.2mg/mL in DMSO

**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.

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

Biological Activity

**Targets:** Metabolism

**Pathways:** HMG-CoA Reductase

**Description:** Pravastatin sodium is a high selective inhibitor of 3-hydroxy-3-methylglutaryl coenzyme-A (HMG-CoA) reductase of 44.1nM [1]. Pravastatin is a competitive inhibitor of HMG-CoA reductase. It has shown to reduce the level of
plasma LDL both in animals and humans through inhibiting cellular cholesterol synthesis. Pravastatin was reported to reduce cellular cholesterol synthesis in three types of macrophages including J-774 A.1 macrophage-like cell line, human monocyte derived macrophages (HMDM) and mouse peritoneal macrophages (MPM) with IC50 values of 0.08, 6.3 and 7.8μg/ml, respectively [2].

Besides the benefit in cardiovascular disease prevention, pravastatin also has efficacy of preventing tumor growth in some degree. However, it has shown that the normal hepatocytes are more sensitive to pravastatin than the tumor cells since pravastatin is selectively taken up by OATP1B1 which is exclusively expressed in normal hepatocytes [3].

Reference: