

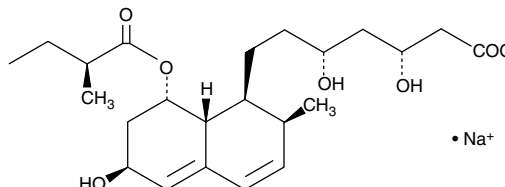
Product Information



Pravastatin (sodium salt)

Item No. 10010343

CAS Registry No.: 81131-70-6
Formal Name: 1S,2S,6S,7S,8R,8aR-hexahydro-βR,δR,6-trihydroxy-2-methyl-8-[(2S)-2-methyl-1-oxobutoxy]-1-naphthaleneheptanoic acid, monosodium salt
MF: C₂₃H₃₅O₇ • Na
FW: 446.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 238 nm



Laboratory Procedures

For long term storage, we suggest that pravastatin (sodium salt) be stored as supplied at -20°C. It should be stable for at least two years.

Pravastatin (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the pravastatin (sodium salt) in an organic solvent purged with an inert gas. Pravastatin (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of pravastatin (sodium salt) in ethanol is approximately 2.5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of pravastatin (sodium salt) can be prepared by directly dissolving the crystalline compound. The solubility of pravastatin (sodium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Hydroxymethylglutaryl-coenzyme A (HMG-CoA) reductase is the rate-limiting enzyme in the cholesterol biosynthetic pathway and the target of the 'statin' class of cholesterol-lowering drugs.¹ Pravastatin is a HMG-CoA reductase inhibitor that is a ring hydroxylated metabolite of mevastatin.² It is a competitive inhibitor of HMG-CoA reductase with a K_i value of 2.3 nM for the active, open ring form of the molecule.² Pravastatin, marketed as PravacholTM or LipostatTM, is used to reduce LDL cholesterol and triglyceride levels and increase HDL cholesterol in the prevention of cardiovascular disease. In a study using dogs, five weeks of treatment with a dose 20 mg/kg per day reduced total plasma cholesterol levels by 29%.²

References

1. Tobert, J.A. Lovastatin and beyond: The history of the HMG-CoA reductase inhibitors. *Nature Reviews Drug Discovery* **2**, 517-526 (2003).
3. Corsini, A., Maggi, F.M., and Catapano, A.L. Pharmacology of competitive inhibitors of HMG-CoA reductase. *Pharmacol. Res.* **31**(1), 9-27 (1995).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10010343

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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