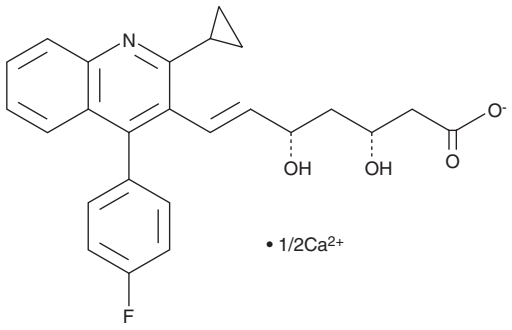
PRODUCT INFORMATION

Pitavastatin (calcium salt)

Item No. 15414

CAS Registry No.:	147526-32-7
Formal Name:	(3R,5S,6E)-7-[2-cyclopropyl-4-(4-fluorophenyl)-3-quinolinyl]-3,5-dihydroxy-6-heptenoic acid, hemicalcium salt
Synonyms:	Itabastatin, Itavastatin, NKS 104
MF:	$C_{25}H_{23}FNO_4$ • 1/2Ca
FW:	440.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 245 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Pitavastatin (calcium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the pitavastatin (calcium salt) in the solvent of choice, which should be purged with an inert gas. Pitavastatin (calcium salt) is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of pitavastatin (calcium salt) in these solvents is approximately 25 and 30 mg/ml, respectively.

Pitavastatin (calcium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pitavastatin (calcium salt) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Pitavastatin (calcium salt) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pitavastatin is an HMG-CoA reductase inhibitor (K_i = 1.7 nM for the rat liver microsomal enzyme).[1] It inhibits sterol biosynthesis in rat liver and ileum (ED_{50}s = 0.13 and 0.2 mg/kg, respectively) and reduces plasma levels of triglycerides and total cholesterol in dogs. Pitavastatin (0.3 mg/kg) increases survival in Dahl salt-sensitive rats fed a high-salt diet, a model of hypertensive heart failure.[2] Formulations containing pitavastatin have been used in the treatment of hyperlipidemia, mixed dyslipidemia, and heterozygous familial hypercholesterolemia.

References

1. Aoki, T., Nishimura, H., Nakagawa, S., *et al.* Pharmacological profile of a novel synthetic inhibitor of 3-hydroxy-3-methylglutaryl-coenzyme A reductase. *Arzneimittelforschung* **47(8)**, 904-909 (1997).
2. Saka, M., Obata, K., Ichihara, S., *et al.* Pitavastatin improves cardiac function and survival in association with suppression of the myocardial endothelin system in a rat model of hypertensive heart failure. *J. Cardiovasc. Pharmacol.* **47(6)**, 770-779 (2006).

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