Product Data Sheet

Product Name: Sevelamer
Cat. No.: GC37630

Chemical Properties

Cas. No.	52757-95-6		
SMILES	NCC(CC(CC)CNCC(O)CNCC(C)CC(CC)CN)CC.[m].[c].[b].[a]		
Formula	$C_{20}H_{46}N_4O$	M.Wt	358.61
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	Sevelamer		

Background

Sevelamer HCl is a phosphate binding drug used to treat hyperphosphatemia via binding to dietary phosphate and prevents its absorption.

Sevelamer is as effective as CaCO3 in reducing serum phosphorus, calcium-phosphorus product, and attenuating secondary hyperparathyroidism in nephrectomized rats (U) fed high phosphorus (HP) diet. Sevelamer results in markedly lower calcium deposition in the myocardium and aorta compared to control rats. [1] Sevelamer suppresses calcification of the aorta media, and also the osteoid volume, fibrosis volume, and porosity ratio of femurs in chronic renal failure rats. [2] Sevelamer results in a significantly lower degree of atherosclerosis and vascular calcification in uremic mice when compared with uremic control mice. Sevelamer exerts an effect on both intima and media calcification in uremic mice. [3] Sevelamer treatment controlled serum P independent of increases in serum Ca, thus reducing serum calcium-phosphate product and further deterioration of renal function, as indicated by the highest creatinine clearances in uremic rats. Sevelamer is as effective as CaCO3 in the control of high-P-induced SH, as shown by similar serum PTH levels, parathyroid (PT) gland weight, and markers of PT hyperplasia. Sevelamer causes a dramatic reduction of renal Ca

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deposition compared with both uremic + high-P diet (U-HP) and the U-HP+CaCO3 diet. [4] Sevelamer hydrochloride results in a fall in urine pH, as well as an increase in urinary ammonium and calcium excretion consistent with an increase in net acid excretion in animal model. [5]

[1] Cozzolino M, et al. Kidney Int, 2003, 64(5), 1653-1661. [2] Katsumata K, et al. Kidney Int, 2003, 64(2), 441-450. [3] Phan O, et al. Circulation, 2005, 112(18), 2875-2882.

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