Sevelamer hydrochloride

Cat. No.: HY-13995A

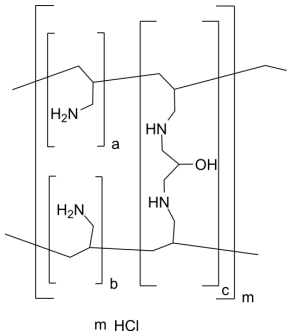
CAS No.: 152751-57-0

Molecular Formula: $(C_3H_7N.C_3H_5ClO)x.xHCl$

Target: FXR; Autophagy

Pathway: Metabolic Enzyme/Protease; Autophagy

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	H_2O : < 0.1 mg/mL (insoluble) DMSO : < 1 mg/mL (insoluble or slightly soluble)

BIOLOGICAL ACTIVITY

Description	Sevelamer hydrochloride is an orally active and phosphate binding agent used for research of hyperphosphatemia with chronic kidney disease. Sevelamer hydrochloride consists of polyallylamine that is crosslinked with epichlorohydrin[1][2][3].
In Vitro	Sevelamer hydrochloride (15 mg/mL; pH=6 or 8) decreases serum levels of gut-derived uremic toxins (such as IAA) or limits the elevation of gut-derived uremic toxins (initial concentration=1 μg/mL or 10 μg/mL)[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Sevelamer hydrochloride (1% mixed in diet; p.o.; once daily for 5 weeks) reduces Npt2b-deficient mice serum phosphate levels, but fails to reduce the level in uremic WT mice[3]. Sevelamer hydrochloride leads to a significant decrease in osteoclast number in uremic WT mice with a trend toward further decrease in $Npt2b^{-/-}$ mice[3]. Sevelamer hydrochloride leads to a significant increase in Npt2b protein expression[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Bennis Y, et al. The Effect of Sevelamer on Serum Levels of Gut-Derived Uremic Toxins: Results from In Vitro Experiments and A Multicenter, Double-Blind, Placebo-Controlled, Randomized Clinical Trial. Toxins (Basel). 2019 May 17;11(5):279.

[2]. Susan C Schiavi, et al. Npt2b deletion attenuates hyperphosphatemia associated with CKD. J Am Soc Nephrol. 2012 Oct;23(10):1691-700.

[3]. Sevelamer, From Wikipedia

Caution: Product has not been fully validated for medical applications. For research use only.

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