LiLiCHRO SCALE IT UP

LiLiCHRO Application Note

Cyclosporine purification

INTRODUCTION

Crude cyclosporine (HPLC purity 81.4%) purification

METHOD DESCRIPTION

Equipment	miniLiLi equipment (35ml column volume)
Mode	Ascending mode with extrusion Stationary phase: Acetonitrile / Water; Ratio: 45:55 Moving phase: Hexane / MTBE / Acetonitrile; Ratio: 65:35:5 Phases weren't equilibrated.

miniLiLi equipment was uploaded with stationary phase flowrate, 300 1/min rotation speed.

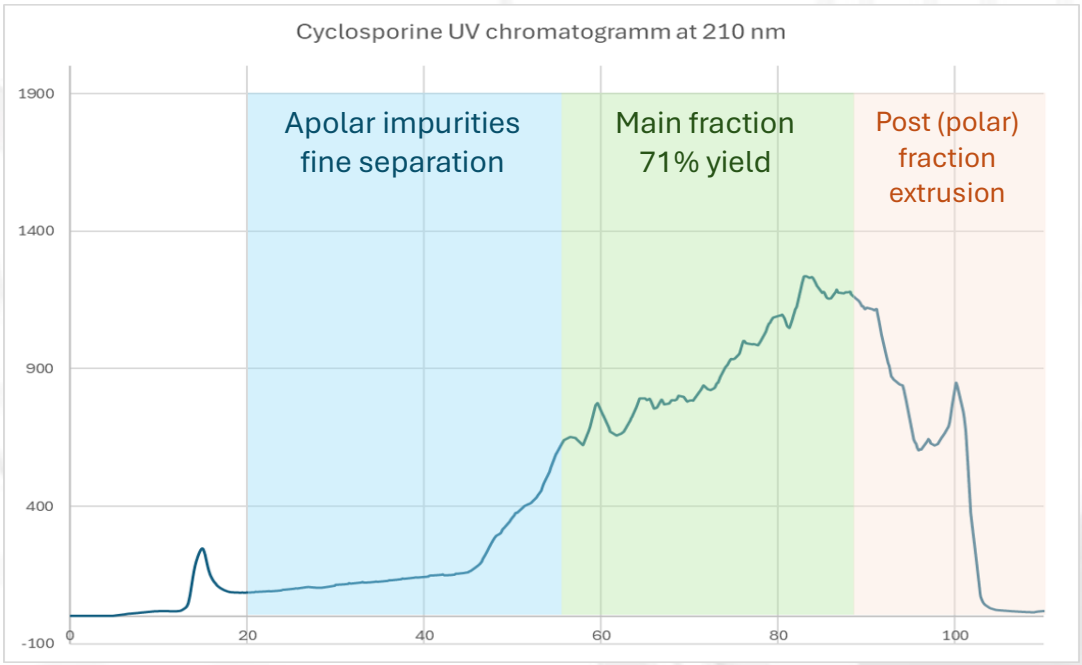
After uploading injection 0.2 ml cyclosporine solution.

After injection rotor speed raised to 1000 1/min and started the moving phase at 2 ml/min flowrate.

Fraction collected by UV-signal at 210 nm. After cyclosporine peaks some polar isomers collected by extrusion.

RESULTS AND DISCUSSION

Result: The final crystallization step enhanced the purity of cyclosporine, successfully achieving the desired quality.



CONCLUSION

The industrial chromatography-based pre-purification was successfully completed prior to the final affinity chromatography step.

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