

Water free ionisable lipid purification

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INTRODUCTION

ALX-24 (from Aldexchem) ionisable lipid purification after synthesis

METHOD DESCRIPTION

Equipment	miniLiLi equipment (34ml column volume)
Mode	Descending mode, Hexane:MTBE:Acetonitrile:AcOH 200:60:140:2 system, mixed, equilibrated and separated.

MiniLiLi equipment was uploaded with upper phase at DSC mode, 4ml/min flowrate, 300 1/min rotation speed.

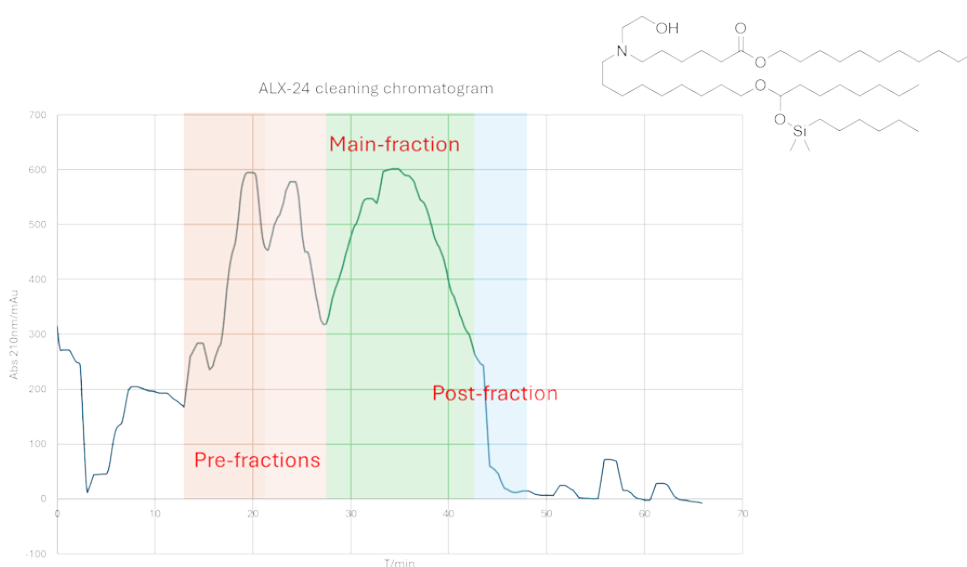
After uploading the rotor was stopped, 150mg ionisable lipid (88% content by QNMR) was diluted by 200 µl hexane and injected and washed twice 2x200 µl upper phase.

After injection rotor speed raised to 1200 1/min and started the lower phase at 2 ml/min flowrate.

Fraction collected by UV-signal at 210nm.

RESULTS AND DISCUSSION

Result: Main fraction purified 70% yield and 99% purity (QNMR)



CONCLUSION

Hydrophobic ionisable lipid purification is possible under water free condition.