

## Daicel Columns for SFC

Daicel polysaccharide columns are well established for use in SFC separations. In addition to the benefits of speed of separation, speed of method development and improved column efficiency, green SFC technology reduces the use of organic solvents. Although the standard Daicel analytical HPLC columns (see pages 81- 84) can be used in SFC, semi-preparative CHIRALPAK and CHIRALCEL SFC columns are packed specifically to withstand the higher pressures of SFC.

Screening is recommended on the four main immobilized phases (IA, IB, IC and ID) and the four main coated columns (AD, OD, AS and OJ) with varying concentrations of organic modifier. Figures 14 and 15 illustrate the fast and efficient analyses possible using Daicel SFC columns.

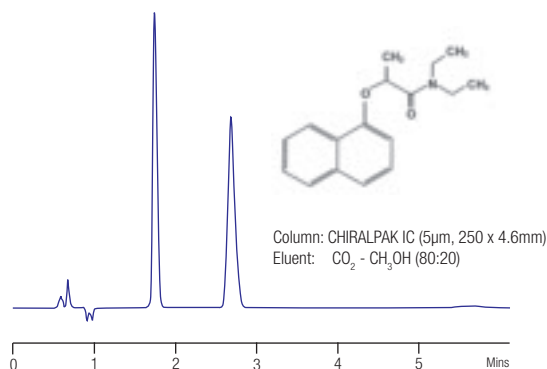


Figure 14. SFC separation of devrinol

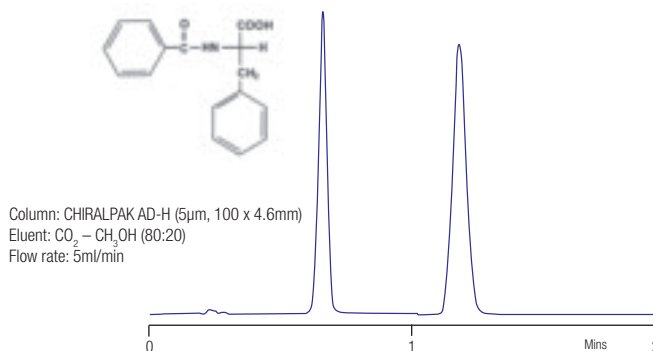


Figure 15. SFC separation of 1-naphthylethanol

Please see page 87 for ordering information for CHIRALPAK and CHIRALCEL SFC columns.

## CHIRALPAK® QN-AX and QD-AX (Lindner Phase Columns)

- Reversed-phase or polar organic modes
- Wide solvent compatibility
- pH range 2 – 8

CHIRALPAK QN-AX and QD-AX are enantioselective weak anion-exchange (AX) columns. They are based on complementary stereoisomeric quinine (QN) and quinidine (QD) derivatives. Due to their pseudo enantiomeric character they usually reveal reversed elution order for opposite enantiomers.

These phases are designed specifically for enantioselective HPLC of chiral acids and show exceptional separation capabilities for acidic chiral compounds containing carboxylic, phosphonic, phosphinic, phosphoric or sulphonic acid groups. In some cases, weakly acidic compounds such as phenols can also be separated.

These two columns can be used in reversed-phase or polar organic modes. The separation of chiral basic and neutral compounds may also be possible, but usually under normal-phase conditions, when the phases behave like standard Pirkle type phases.

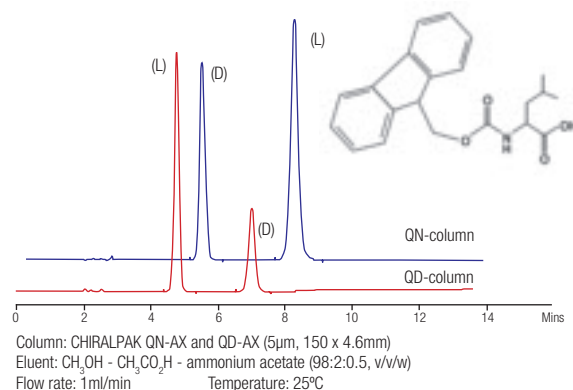
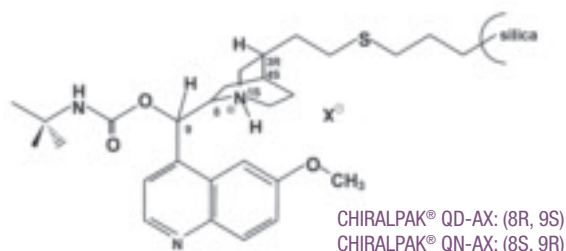


Figure 16. Analysis of Fmoc-Leu on CHIRALPAK QN-AX and QD-AX

### Ordering Information

CHIRALPAK 5µm Phase	Column Dimensions (mm)			Analytical Guard Cartridges <sup>1</sup> (3/pk) (For 4.6mm i.d. Columns)
	150 x 2.1	150 x 4.6	150 x 20	
QD-AX	31394	31324	31344	31311
QD-AX SFC	-	-	31444	-
QN-AX	32394	32324	32344	32311
QN-AX SFC	-	-	32444	-

<sup>1</sup> Use with holder 00011

and column coupler 000D1

**Ordering Information - Traditional Phases (continued)**

3µm Phase	Column Dimensions (mm)					Analytical Guard Cartridge <sup>1</sup> 3/µk (For 4.6mm i.d. Columns)
	150 x 2.1	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	
<b>Normal-phase</b>						
CHIRALPAK AD-3	19594	19522	19523	19524	19525	19511
CHIRALPAK AS-3	-	20522	20523	20524	20525	20511
CHIRALCEL OD-3	14594	14522	14523	14524	14525	14511
CHIRALCEL OJ-3	-	17522	17523	17524	17525	17511
CHIRALPAK AZ-3	-	61522	61523	61524	61525	61511
CHIRALPAK AY-3	-	47522	47523	47524	47525	47511
CHIRALCEL OZ-3	-	42522	42523	42524	42525	42511
CHIRALCEL OX-3	63594	63522	63523	63524	63525	63511
<b>Reversed-phase</b>						
CHIRALPAK AD-3R	19894	19822	19823	19824	-	19811
CHIRALPAK AS-3R	-	20822	20823	20824	-	20811
CHIRALCEL OD-3R	14894	14822	14823	14824	-	14811
CHIRALCEL OJ-3R	-	17822	17823	17824	-	17811
CHIRALPAK AY-3R	-	47822	47823	47824	-	47811
CHIRALPAK AZ-3R	-	61822	61823	61824	-	61811
CHIRALCEL OZ-3R	-	42822	42823	42824	-	42811
CHIRALCEL OX-3R	63894	63822	63823	63824	-	63811

<sup>1</sup> Use with holder 00011 and column coupler 000D1

**Ordering Information - SFC Phases**

5µm Phase	Column Dimensions <sup>1</sup> (mm)		
	100 x 4.6	250 x 10	250 x 20
CHIRALPAK IA SFC	80423	80435	80445
CHIRALPAK IB SFC	81423	81435	81445
CHIRALPAK IC SFC	83423	83435	83445
CHIRALPAK ID SFC	84423	84435	84445
CHIRALPAK IE SFC	85423	85435	85445
CHIRALPAK IF SFC	86423	86435	86445
CHIRALPAK AD-H SFC	19423	19435	19445
CHIRALPAK AS-H SFC	20423	20435	20445
CHIRALCEL OD-H SFC	14423	14435	14445
CHIRALCEL OJ-H SFC	17423	17435	17445
CHIRALPAK AZ-H SFC	61423	61435	61445
CHIRALPAK AY-H SFC	47423	47435	47445
CHIRALCEL OZ-H SFC	42423	42435	42445
CHIRALCEL OX-H SFC	63423	63435	63445

<sup>1</sup> Please enquire regarding larger i.d. prep columns
