



Recycling Preparative HPLC (Manual model)
LC-9210NEXT

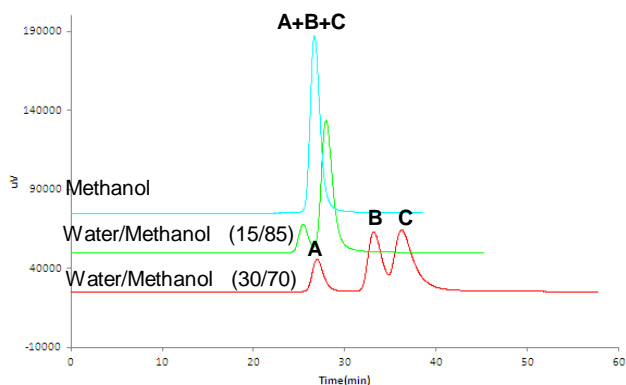
Elution behavior of Adrenocortical hormones with Mobile Phase Compositions

Point

This is to introduce different elution behavior of adrenocortical hormone, such as aldosterone, corticosterone, deoxycorticosterone sample, based on mobile phase compositions (water/methanol), using JAIGEL-GS series columns.

◆ JAIGEL-GS310 or GS320 Chromatograms

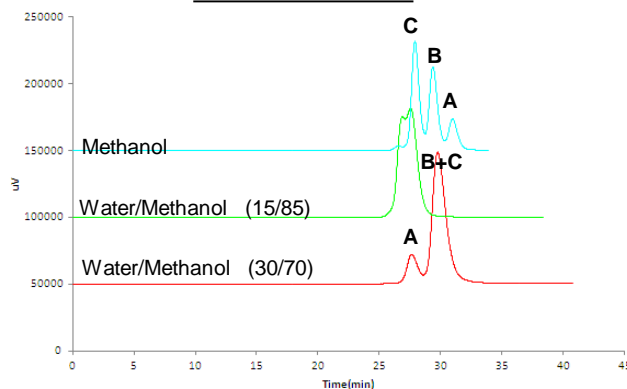
JAIGEL-GS310



Column : JAIGEL-GS310-A
Eluent : Water/Methanol
Detector : UV-370 NEXT @ 240 nm
Sample : Aldosterone, Corticosterone
Deoxycorticosterone

A : Aldosterone
B : Corticosterone
C : Deoxycorticosterone

JAIGEL-GS320



Column : JAIGEL-GS320-A
Eluent : Water/Methanol
Detector : UV-370 NEXT @ 240 nm
Sample : Aldosterone, Corticosterone
Deoxycorticosterone

A : Aldosterone

B : Corticosterone

C : Deoxycorticosterone

JAIGEL-GS series are Polyvinyl Alcohol (PVA) type polymer packed aqueous SEC (GFC) column can apply for wide range of applications, using water to nonpolar solvent. Depends on the polarity of mobile phase, it can be SEC (Size Exclusion) or adsorption and partition mode or ion exchange mode as secondary interaction.

From the adobe chromatograms, under more methanol condition (Water/Methanol = 30/70), both GS310 and GS320 columns showed dilated retention time due to SEC + hydrophobic interaction. GS310 has shown more hydrophobic interaction and reversed phase separation. GS320, however, has less hydrophobicity gel and peak B and C are overwrapped.

Under more methanol condition, 100% methanol, it becomes more normal phase mode and high polar samples elute late. GS310 separated the sample in more SEC mode, whereas GS320 separated SEC + hydrophilic interaction so that shows reversed retention time.