

HPLC column for saccharide analysis

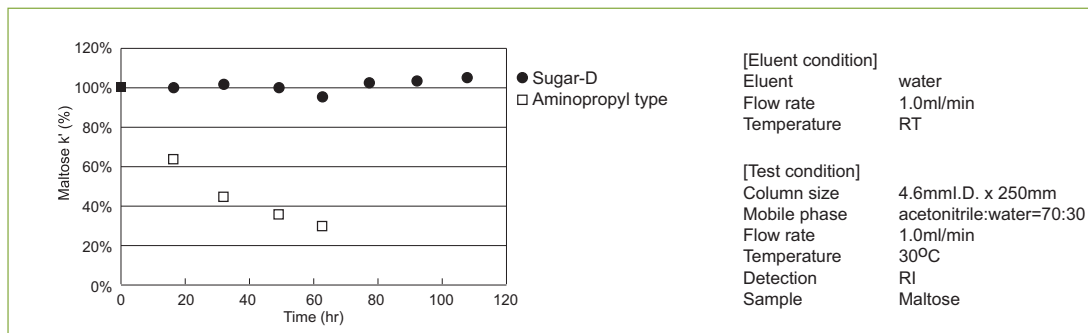
COSMOSIL Sugar-D Packed Column

Conventionally Aminopropyl bounded stationary phases are used for liquid chromatographic analysis of mono and oligosaccharides. General shortcomings of the conventional Aminopropyl bounded phases are tailing and adsorption of certain saccharides and general low durability (short active life) of these columns. These problems are addressed and solved by the novel COSMOSIL Sugar-D, resulting in better (sharper) separation and much improved durability.

In addition COSMOSIL Sugar-D is useful at the separation of highly hydrophilic compounds which are not retained in conventional octadecyl (ODS) bounded stationary phases.

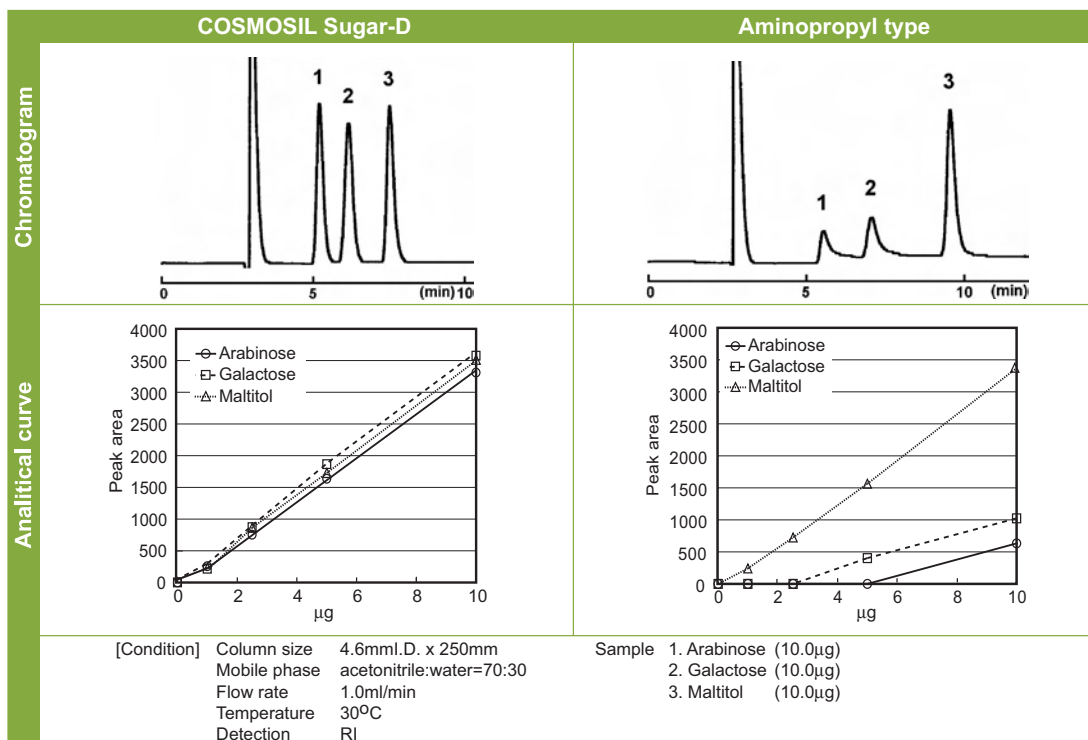
Durability

The decrease of retention time was compared between COSMOSIL Sugar-D and conventional Aminopropyl bounded stationary phase under severe condition of 100% water as eluent between tests. The capacity factor did not decrease in case of COSMOSIL Sugar-D.



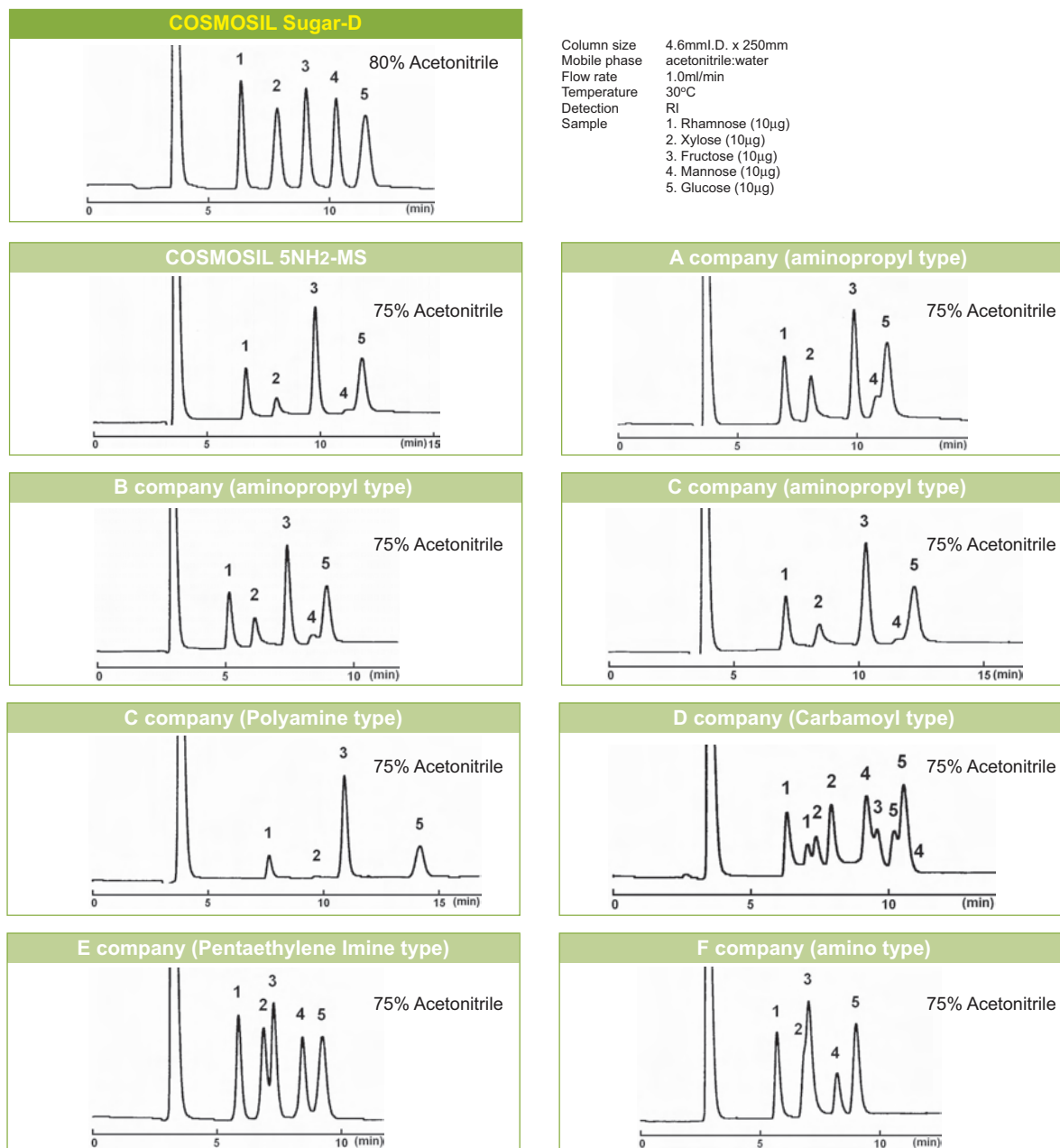
Absorption characteristic

Certain types of saccharides such as Arabinose or Galactose are partially or temporarily absorbed in conventional Aminopropyl stationary phases causing disappearance of sample or tailing. These problematic saccharides elute sharply and in proportion of the injection volume from the superior COSMOSIL Sugar-D.



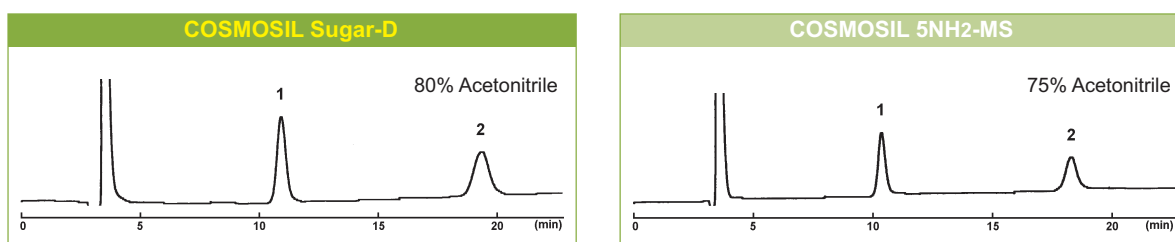
Comparison

The separation performances and the adsorption of monosaccharides were compared in COSMOSIL Sugar-D and other companies' columns. The presence of Aldehyde-group in the sample saccharides (except of Fructose) does not result in undesirable adsorption, therefore has no ill effect on the performance of COSMOSIL Sugar-D column.

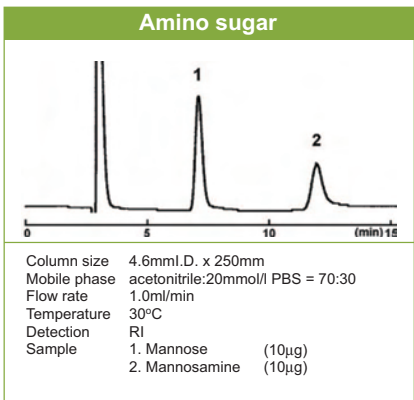
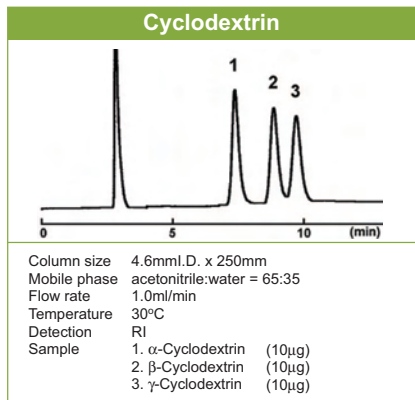
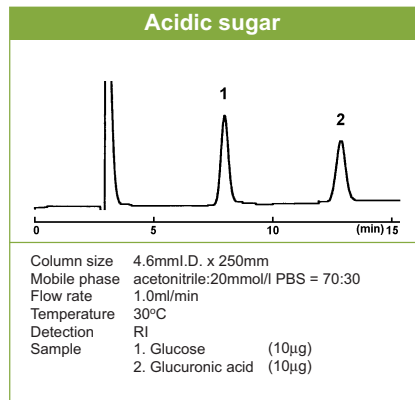
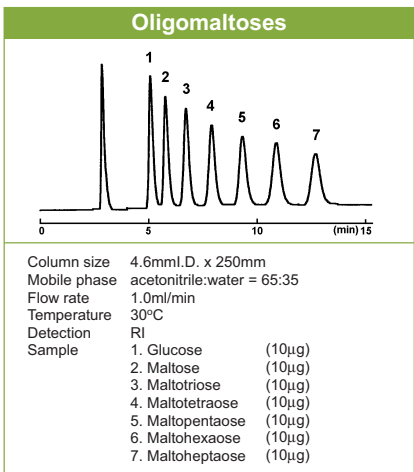
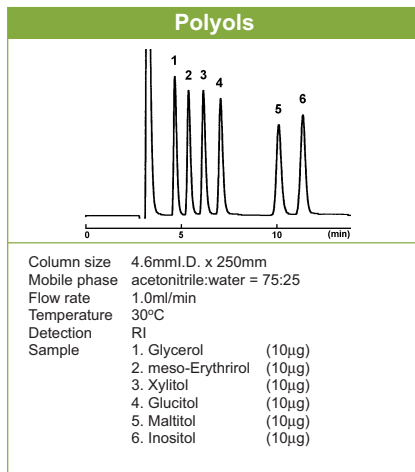
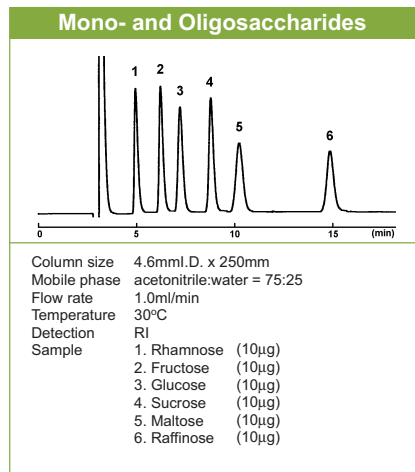


Retention time

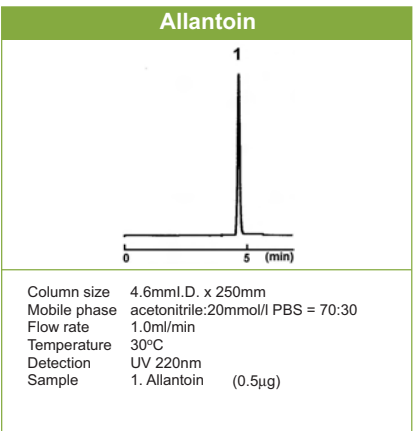
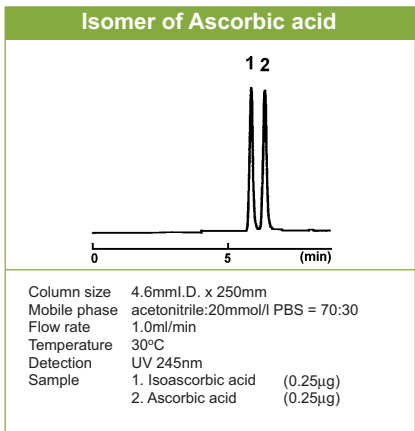
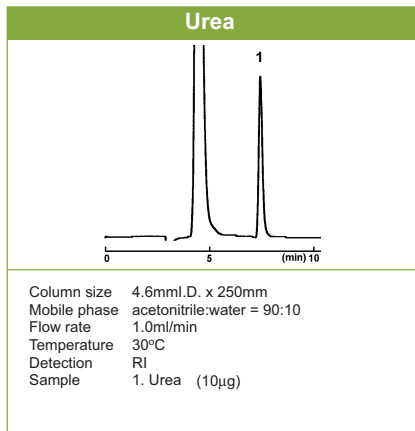
The conventional Aminopropyl column is slightly more retentive than Sugar-D. The retention time can be adjusted by increasing the concentration of Acetonitrile in the mobile phase by 5%-10%.



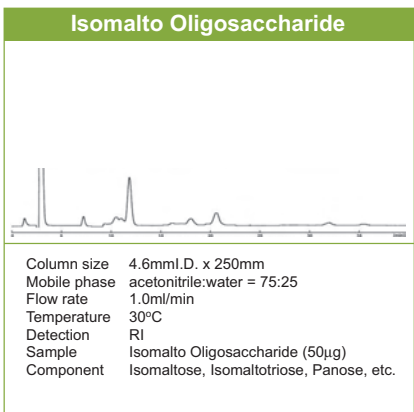
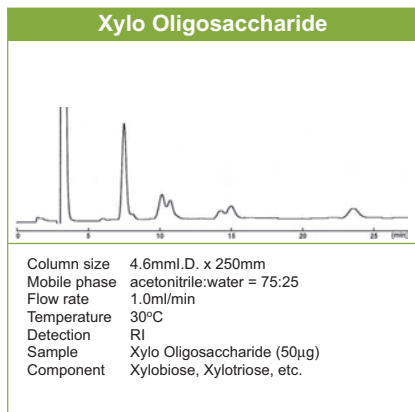
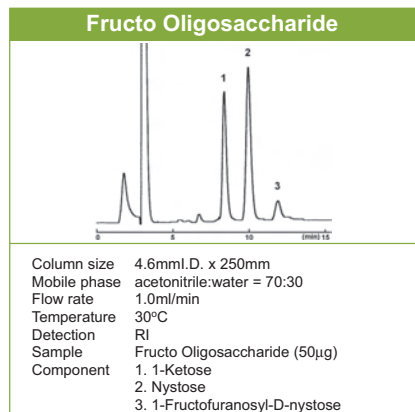
Separation of saccharides

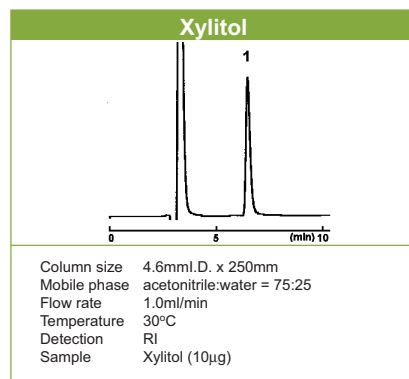
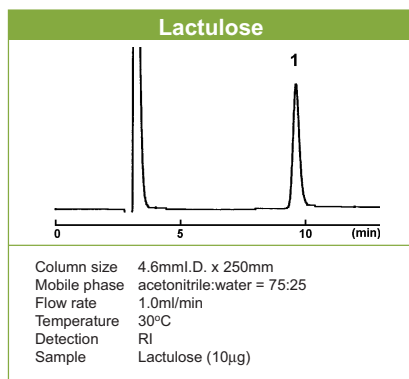
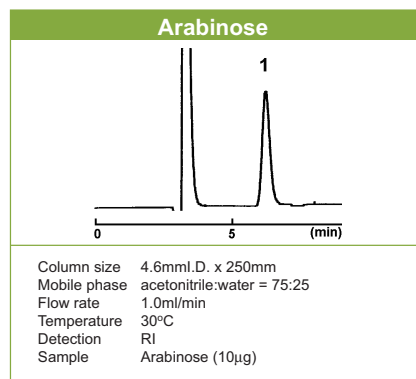


Separation of hydrophylic compounds

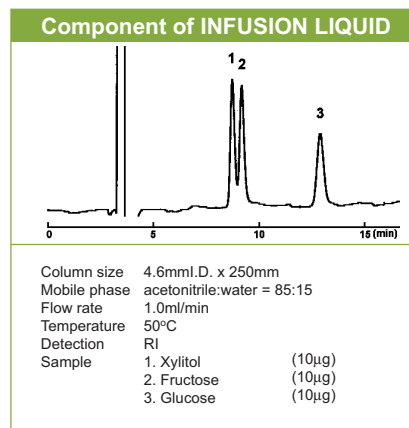
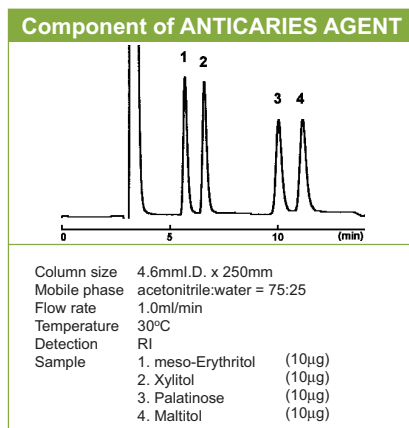
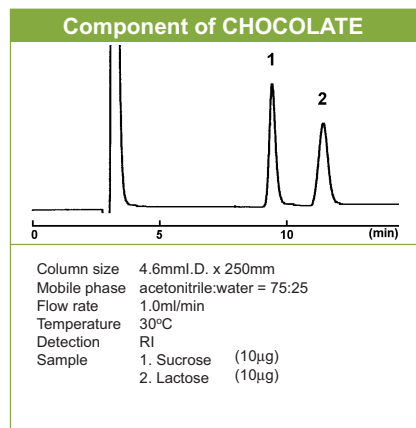
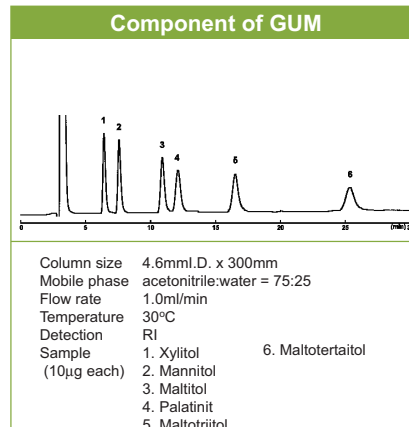
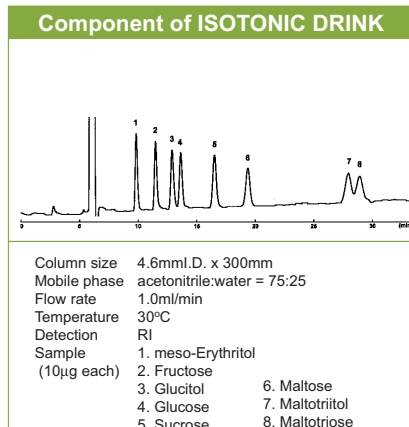
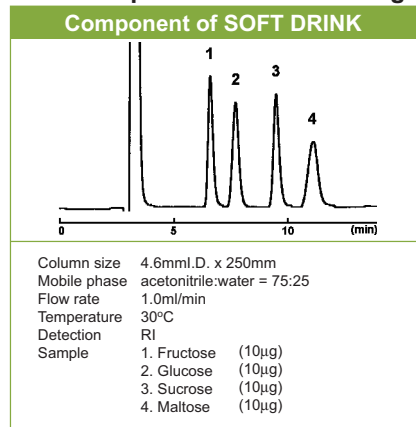


Health food composition





Food composition / Anticaries agent



Ordering information

Product name	Size	Code No.
COSMOSIL Sugar-D	2.0mm.I.D. x 150mm	05688-41
Packed Column	2.0mm.I.D. x 250mm	05689-31
	3.0mm.I.D. x 150mm	05690-91
	3.0mm.I.D. x 250mm	05691-81
	4.6mm.I.D. x 150mm	05395-71
	4.6mm.I.D. x 250mm	05397-51
	10.0mm.I.D. x 250mm	05692-71
	20.0mm.I.D. x 250mm	05693-61

Product name	Size	Code No.
COSMOSIL Sugar-D	4.6mm.I.D. x 10mm	05394-81
Guard Column	10.0mm.I.D. x 20mm	05696-31

Other size may be available. Please enquire!!

For research use only, not intended for diagnostic or drug use.



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