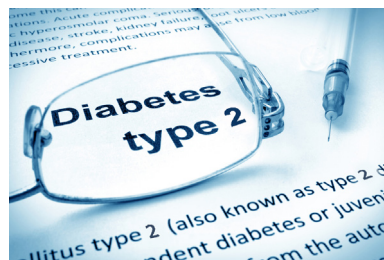


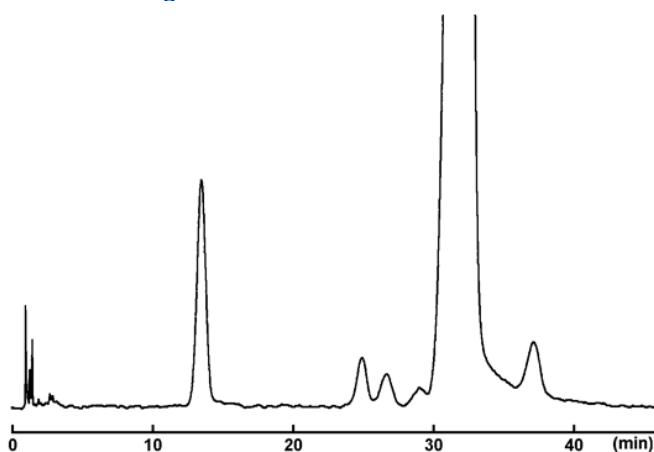
Acarbose Analysis

Acarbose is used to treat type 2 diabetes. A recent study shows efficacy and tolerability of acarbose in patients with type 2 diabetes.

By using COSMOSIL Sugar-D, which is designed for saccharide analysis, high-resolution separation of Acarbose and its impurities was obtained. Furthermore, COSMOSIL Sugar-D was more durable than the conventional NH₂ column.

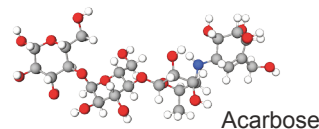


COSMOSIL Sugar-D



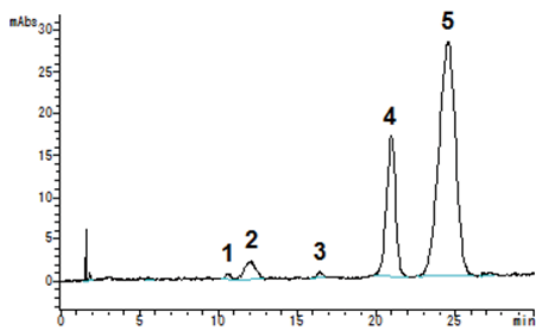
Analytical Conditions

Column: COSMOSIL Sugar-D
 Column size: 4.6mm I.D. x 250mm
 Mobile phase: Acetonitrile/ Buffer = 82/18
 Buffer: KH₂PO₄ 600 mg/L (H₂O), Na₂HPO₄ 279 mg/L (H₂O),
 Flow rate: 2.5 ml/min
 Temperature: 40°C
 Detection: UV210nm
 Sample: Acarbose for peak identification (20 mg/ml)
 Inj.Vol.: 10 µl



Durability

COSMOSIL Sugar-D column showed excellent stability and durability with acarbose analysis. After 260 injections, the retention time, pressure, theoretical plates and separation were nearly identical to 1st injection. COSMOSIL Sugar-D can increase the efficiency of acarbose analysis and reduce analysis cost.



Chromatogram of 260th injection

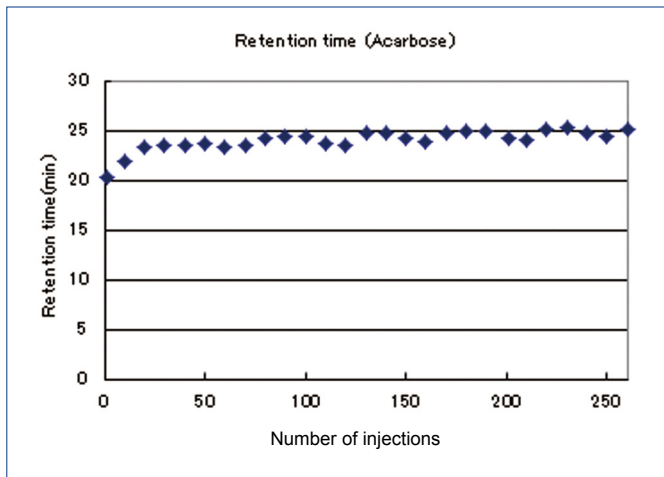
	Retention Time	Peak Area	Theoretical Plate Number
Peak 1	10.59 min	15480	4178
Peak 2	12.04 min	112223	1204
Peak 3	16.47 min	16953	8034
Peak 4	20.97 min	659785	6357
Peak 5	24.57 min	2061819	2662

Test Condition

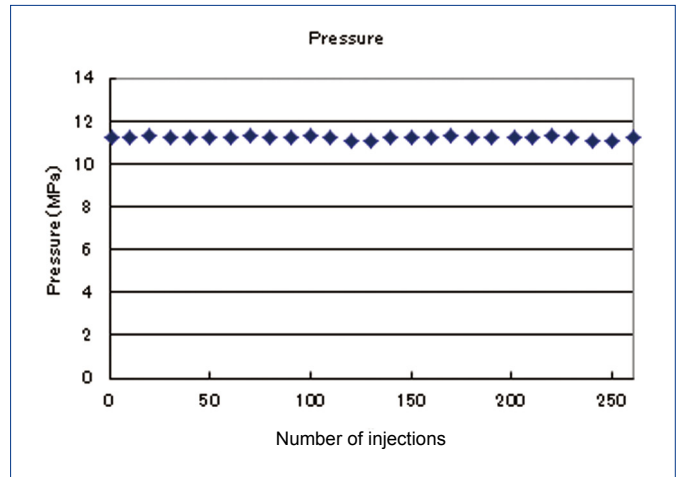
Column Size: 4.6 mm I.D. x 250 mm
 Mobile Phase: Acetonitrile/ 5 mmol/l Phosphate Buffer (pH7.0) = 80/20
 Flow Rate: 2.0 ml/min
 Temperature: 30°C
 Detection: UV210nm
 Sample: Acarbose (20 mg/ml)
 Inj. Vol.: 2.5 µl
 Sample preparation: 0.1N NaOH treatment, 6hr
 cycle: 30min

>> Continues on reversed side

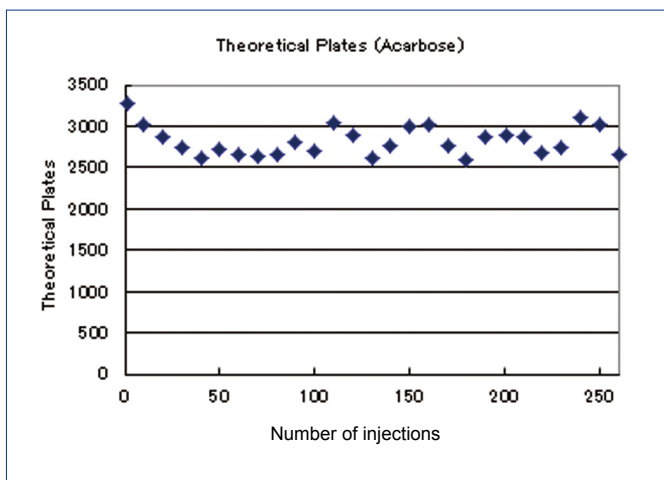
● Retention Time (Peak 5)



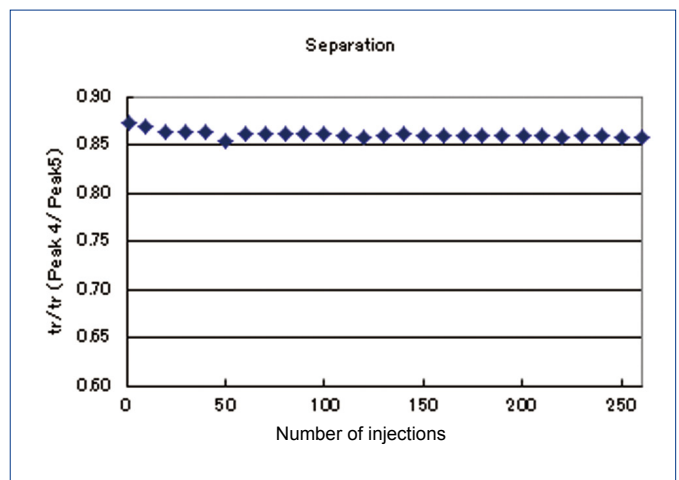
● Pressure



● Theoretical plate number (Peak 5)



● Separation



◆ Ordering Information

Product Name	Column Size	Product Number
COSMOSIL Sugar-D Packed Column	2.0 mm I.D. x 250 mm	05689-31
	3.0 mm I.D. x 150 mm	05690-91
	3.0 mm I.D. x 250 mm	05691-81
	4.6 mm I.D. x 150 mm	05395-71
	4.6 mm I.D. x 250 mm	05397-51
	10.0 mm I.D. x 250 mm	05692-71
	20.0 mm I.D. x 250 mm	05693-61

Product Name	Column Size	Product Number
COSMOSIL Sugar-D Guard Column	4.6 mm I.D. x 10 mm	05394-81
	10.0 mm I.D. x 20 mm	05696-31
	20.0 mm I.D. x 50 mm	05694-51

Other size may be available. Please enquire.

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