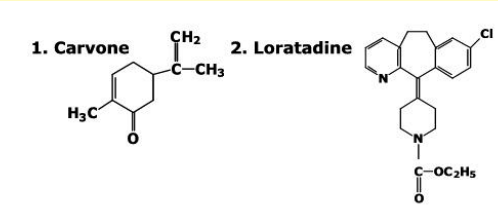
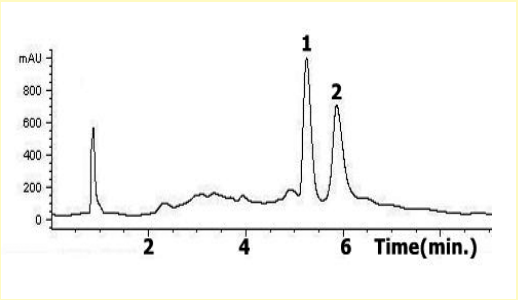
APPLICATION NOTES

Cogent™ Bidentate C18
with TYPE-C Silica™

HPLC





Note: Cogent Bidentate C18™ columns can be changed from Reverse Phase Mode to Classic Normal Phase – HPLC (and vice versa) using easy 30 minutes procedure:

A – To convert from Reverse Phase mode to Normal Phase mode on these columns, pump 100% methanol through the column for 15 minutes at 1 mL/min. Follow with 100% methylene chloride for 15 minutes. The column is ready to be equilibrated with your mobile phase for normal phase chromatography.

B – To convert from Normal Phase mode to Reverse Phase Mode on these columns, pump 100% methylene chloride for 15 minutes at 1 mL/min. Follow with 100% methanol for 15 minutes. The column is now ready to be equilibrated with your mobile phase for reverse phase mode chromatography.

Carvone: Recently the USA National Cancer Institute and others are evaluating chemo-preventive and anti-carcinogenic properties of monoterpenes (naturally occurring non-nutrient dietary constitutes like Carvone). If administrated in the diet, they prevent or cause the regression of colon, hepatic and pancreatic cancers chemically induced in laboratory animals. Loratadine: (Lora) is a non-sedative second generation H1 receptor blocker. It is available commercially as mono component tablets (Claritin1).

Pharmaceutical Preparation

General Method Using A Gradient In Classic Normal Phase Mode

Method Conditions

Column:	Cogent Bidentate C18, 4µm, 100Å.
Catalog No.:	40018-75P
Dimensions:	4.6 x 75 mm
Gradient:	0 – 0.5 min 100% hexane 0.5 – 7.0 min 50% hexane + 50 % dichloromethane 7.0 – 10.0 min 50% hexane + 50 % dichloromethane 10 - 10.5 min 100% hexane
Flow rate:	0.5 mL/minute
Injection Volume:	10 µL
Peaks:	1. Carvone 2. Loratadine
Concentration:	0.1 mg/mL *in Hexane/DCM(1:1)*
Detection:	UV at 254 nm

Discussion

Both Carvone and Loratadine have similar polarity but they can be separated using Cogent Bidentate C18™ column with significant retention (k>2). When the mobile phase of 95% hexane and 5% dichloromethane is used the Loratadine is infinitely retained. The classic Normal Phase analysis shown above is simple, rapid and cost effective and can be used in routine quality control in the production or purity determination of both Carvone and/or Loratadine. The proposed method can be used as a general method for analysis of pharmaceutical compositions for oral administration containing an antihistaminic compound and a terpenoid compound, which are useful in the prevention or treatment of inter alia allergic rhinitis (hay fever) and mild asthma.

For more information visit www.MTC-USA.com

Cat. No.	Description
40018-75P	Cogent Bidentate C18™ HPLC Column, 100Å, 4µm, 4.6 x 75 mm

MICROSOLV™

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