



Blood Alcohol Analysis

Rtx®-BAC Plus 1/Rtx®-BAC Plus 2 Columns

- Optimized column selectivities guarantee resolution of ethanol, internal standards, and frequently encountered interferences.
- Robust and reproducible column chemistry ensures longer column lifetime and consistent results.
- Stable to 260 °C.

These application-specific columns for blood alcohol analysis baseline separate all critical compounds—including ethanol, methanol, acetone, *tert*-butanol, acetaldehyde, isopropanol, and *n*-propanol—in less than 2 minutes. Every Rtx®-BAC Plus 1 and Rtx®-BAC Plus 2 column is qualified with a test mix containing these important BAC target compounds to ensure reproducibility.

These columns baseline separate all blood alcohol compounds in blood, breath, or urine, in less than 2 minutes, under isothermal conditions. Isothermal analysis increases productivity by eliminating the need for oven cycling. Confirmation is easily achieved with this tandem set because there are two elution order changes between the columns.

Rtx®-BAC Plus 1 Columns (fused silica)

ID	df	temp. limits	30-Meter cat.#
0.32 mm	1.80 µm	-20 to 240/260 °C	18004
0.53 mm	3.00 µm	-20 to 240/260 °C	18005

Rtx®-BAC Plus 2 Columns (fused silica)

ID	df	temp. limits	30-Meter cat.#
0.32 mm	0.6 µm	-20 to 240/260 °C	18006
0.53 mm	1.0 µm	-20 to 240/260 °C	18007

similar phases

DB-ALC1, ZB-BAC1
DB-ALC2, ZB-BAC2

free literature

Rtx®-BAC Plus 1 and Rtx®-BAC Plus 2 Columns
Advanced Technology for Fast, Reliable Measurement of Alcohol in Blood

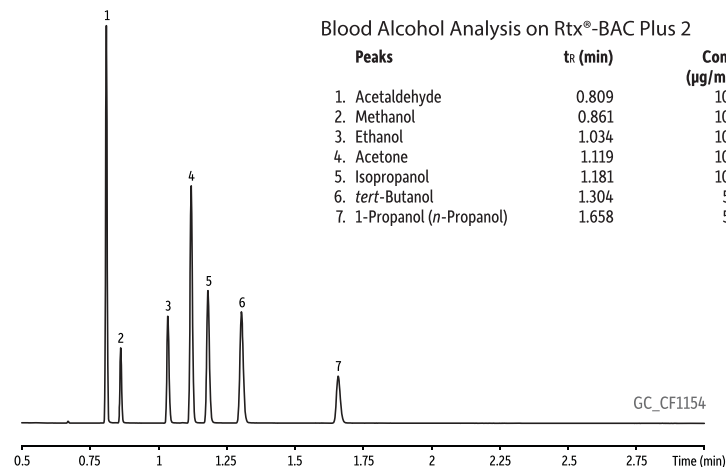
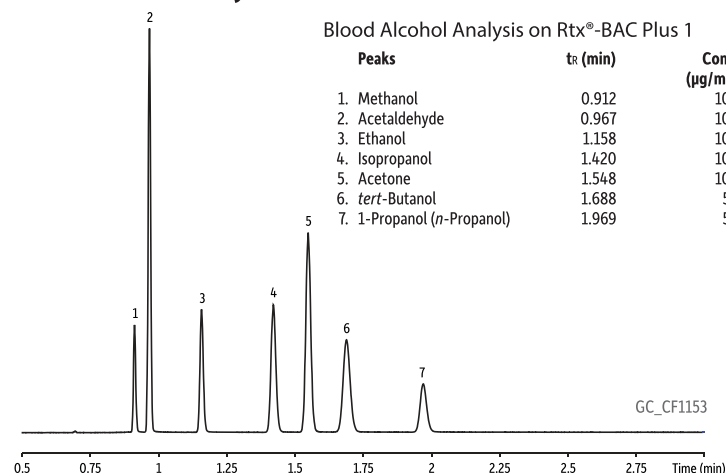
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lit. cat.#
CFBR1538-UNV



Blood Alcohol Analysis on Rtx®-BAC Plus 1 and Rtx®-BAC Plus 2



Column Rtx®-BAC Plus 1, 30 m, 0.32 mm ID, 1.8 µm (cat.# 18004)
Sample BAC resolution control standard n-P (cat.# 36010)
BAC resolution control standard t-B (cat.# 36011)
Diluent: Water
Conc.: 50 µL of each standard were diluted in 900 µL water in a 20 mL headspace vial.
Injection Headspace-loop split (split ratio 50:1)
Liner: 1 mm ID straight inlet liner (cat.# 20972)
Headspace-Loop
Inj. Port Temp.: 200 °C
Instrument: Tekmar HT3
Inj. Time: 3 min
Transfer Line
Temp.: 125 °C
Valve Oven Temp.: 125 °C
Standby flow rate: 50 mL/min
Sample Temp.: 60 °C
Sample Equil. Time: 5 min
Vial Pressure: 30 psi
Pressurize Time: 1 min
Loop Pressure: 20 psi
Loop Fill Time: 1 min
Oven
Oven Temp.: 40 °C (hold 3 min)
Carrier Gas He, constant flow
Linear Velocity: 80 cm/sec @ 40 °C
Detector FID @ 240 °C
Make-up Gas
Flow Rate: 30 mL/min
Make-up Gas Type: N₂
Instrument Agilent/HP6890 GC
Notes Headspace concentrator courtesy of Teledyne Tekmar, Mason, OH.