



# Gazelle

UHPLC Columns



# Gazelle™

## UHPLC Columns

Orochem Technologies Gazelle UHPLC columns offer the chromatographer significantly increased throughput, low solvent consumption, inline process monitoring, and improved LC-MS results. Gazelle is designed by Orochem Technologies, especially to yield higher sensitivity and reproducibility in less run time. Orochem uses a proprietary silica type A manufacturing process that yields a narrow particle size and pore size distribution, which gives you consistent and reproducible results. The hydrophobic spherical surface is also stable over a wide pH range (2-8) to allow for excellent method flexibility.



### Stationary phases

C18  
Biphenyl  
Amino  
PFP

### Advantages

Good Resolution  
Faster Analysis  
High Sensitivity  
Low band spreading  
High carbon loading C18

### Features

Surface Area: 190 m<sup>2</sup>/g  
Pore Size: 100 Å  
Pore Volume: 0.6  
pH Range: 2-8  
Particle Size: 1.7µm

### Applications

#### C18

Barbiturates, THCA, amphetamine, methamphetamine, MDMA, 6-MAM, norketamine, norfentanyl, morphine, hydromorphone, oxycodone, codeine, hydrocodone, oxycodone, noroxycodone, norhydrocodone, oxyazepam, tempazepine, zolpidem, lorazepam, norbupronorphine and over 50 drugs. Cannabinoids, 1,25-dihydroxy vitamin D and 25-OH vitamin D.

#### Biphenyl

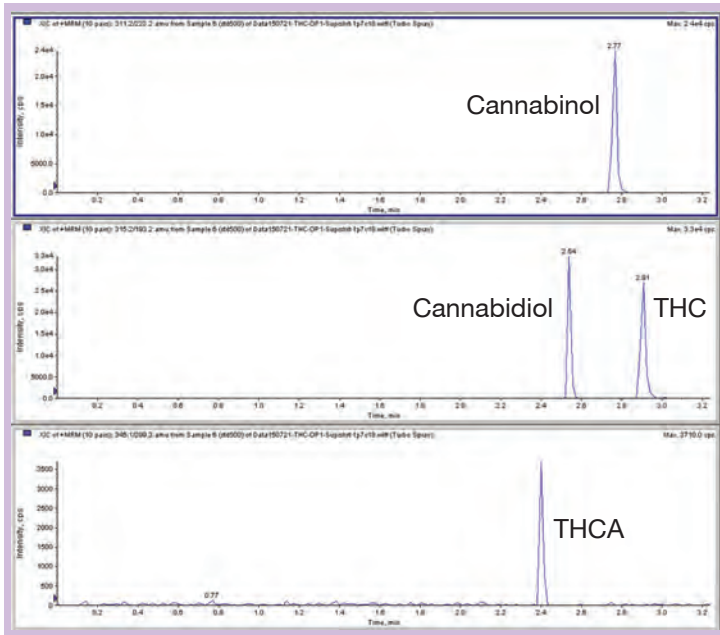
Same as C18

#### Amino

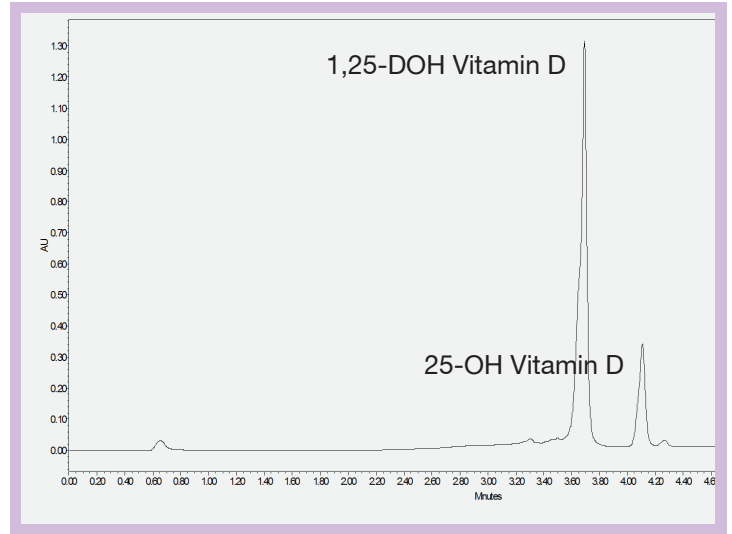
Stevioside, rebaudioside C, rebaudioside A

# Applications

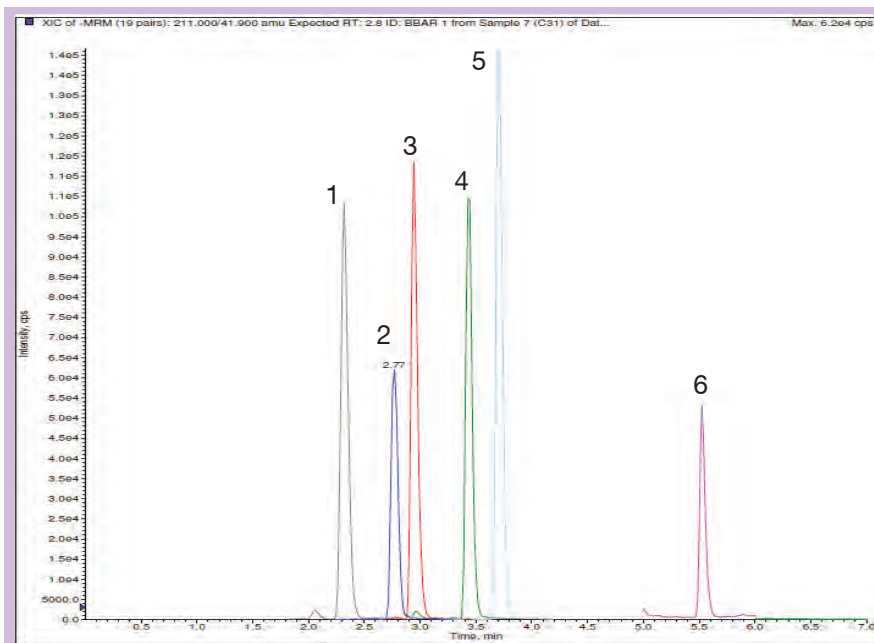
1. Separation Cannabinol, cannabidiol, THC and THCA in urine sample by Gazelle C18 UHPLC-MS/MS



2. Separation of Vitamin D metabolites in plasma sample by Gazelle C18 UHPLC-MS/MS



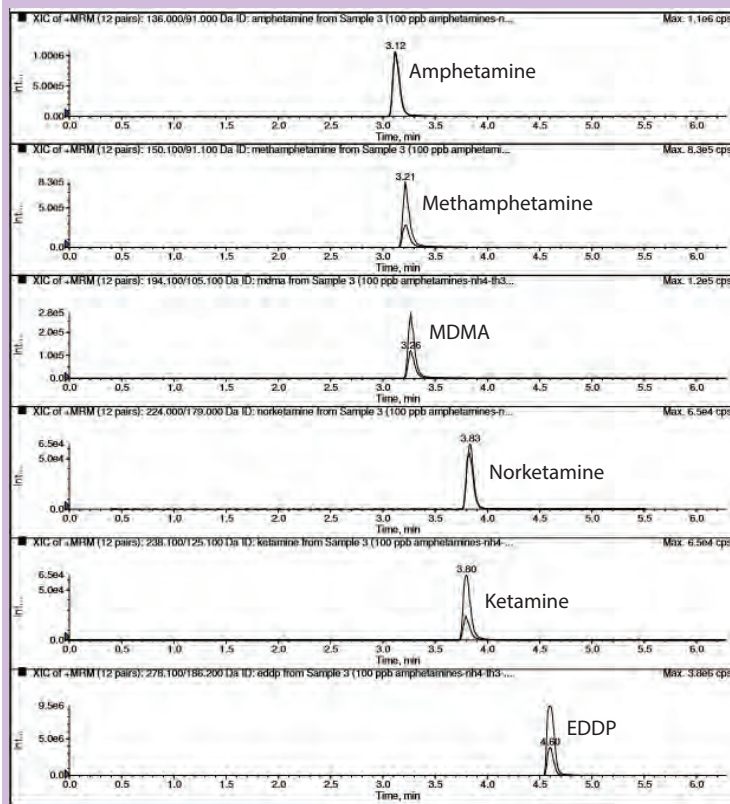
## Barbiturate and THCA Separation



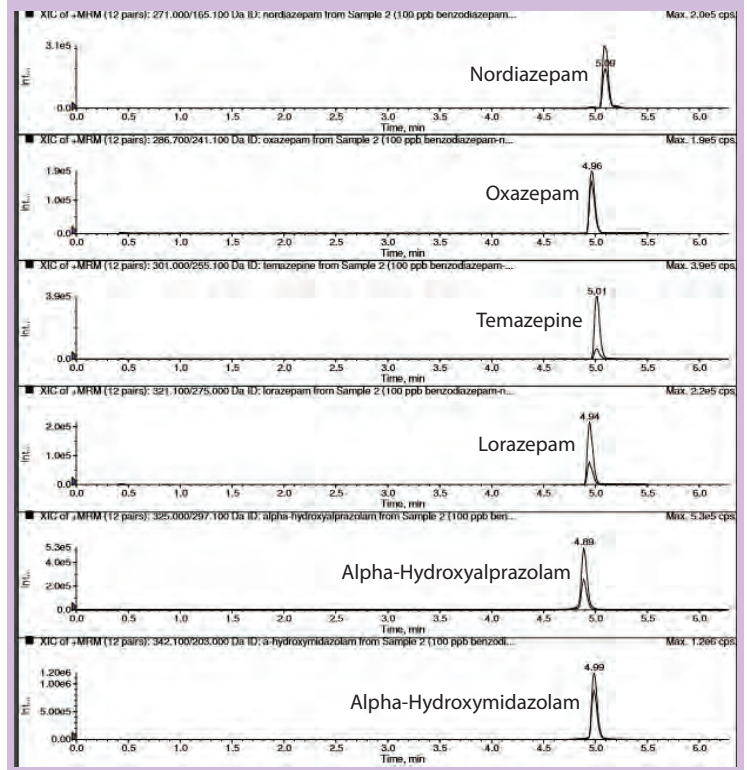
1	Phenobarbital
2	Butobarbital
3	Butalbital
4	Amobarbital
5	Secobarbital
6	THCA

#### 4. Separation of Main drugs panel by Gazelle C18 UHPLC- MS/ MS

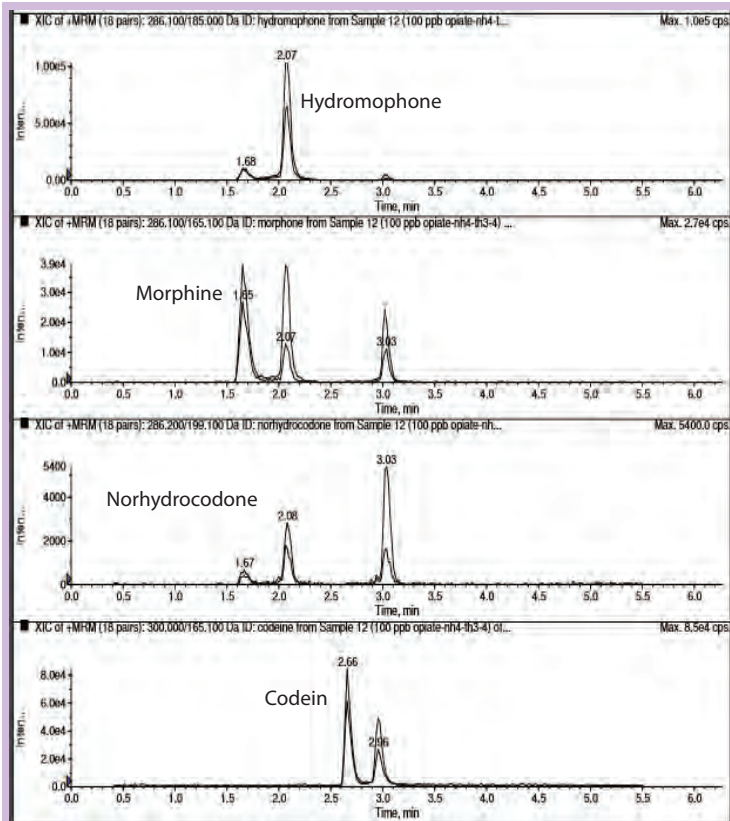
##### Amphetamine-Gazelle



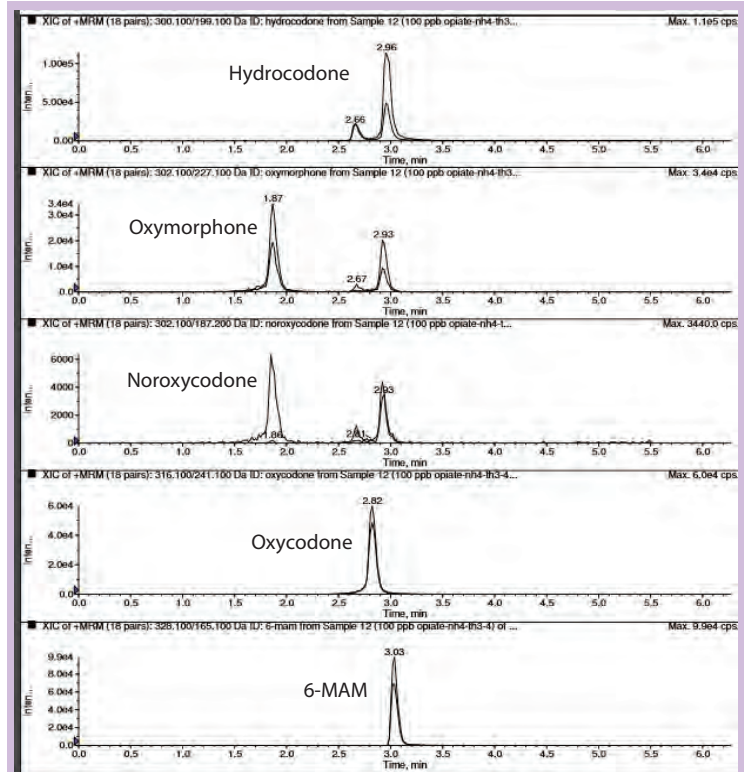
##### Benzodiazepam-Gazelle



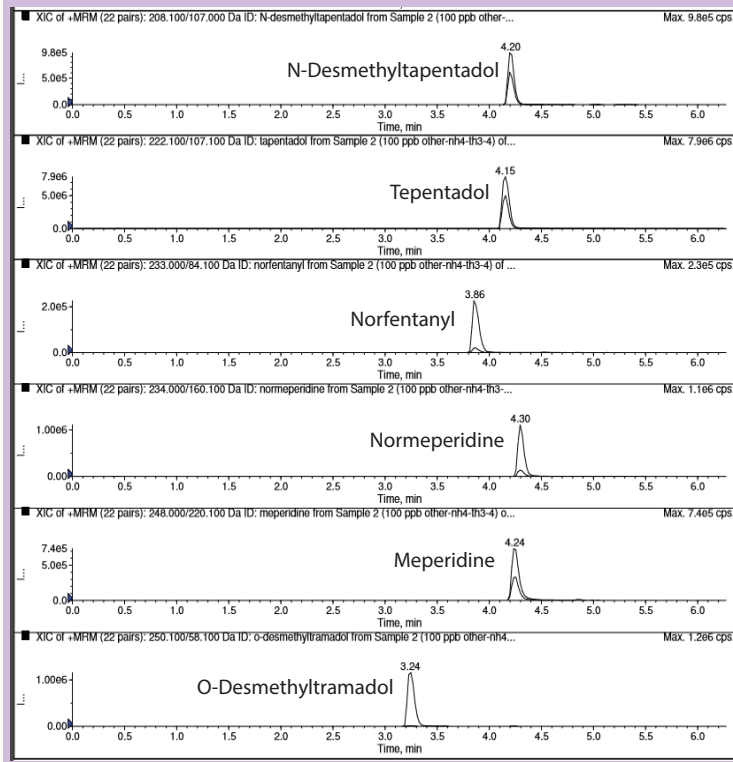
##### Opiates-Gazelle



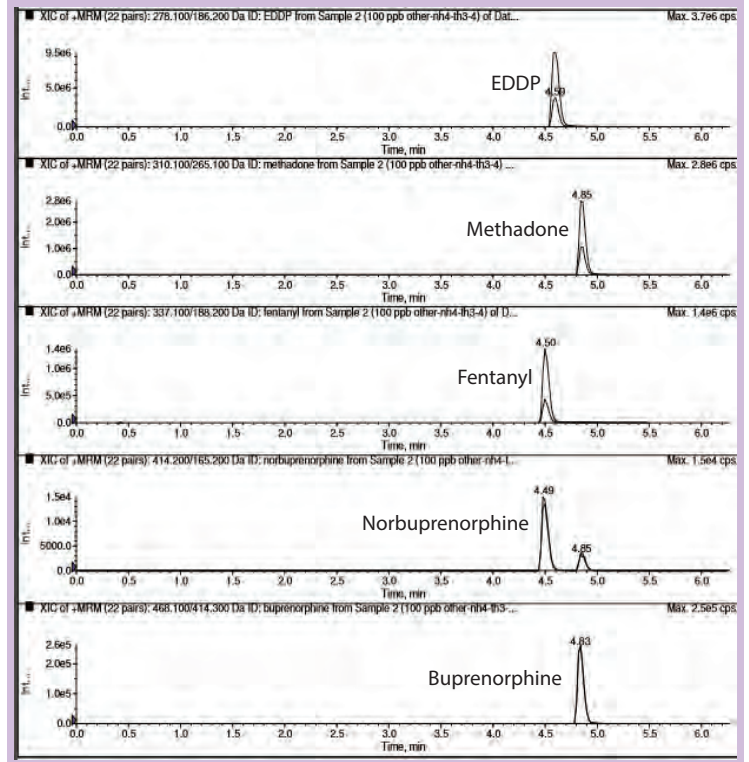
##### Opiates-Gazelle



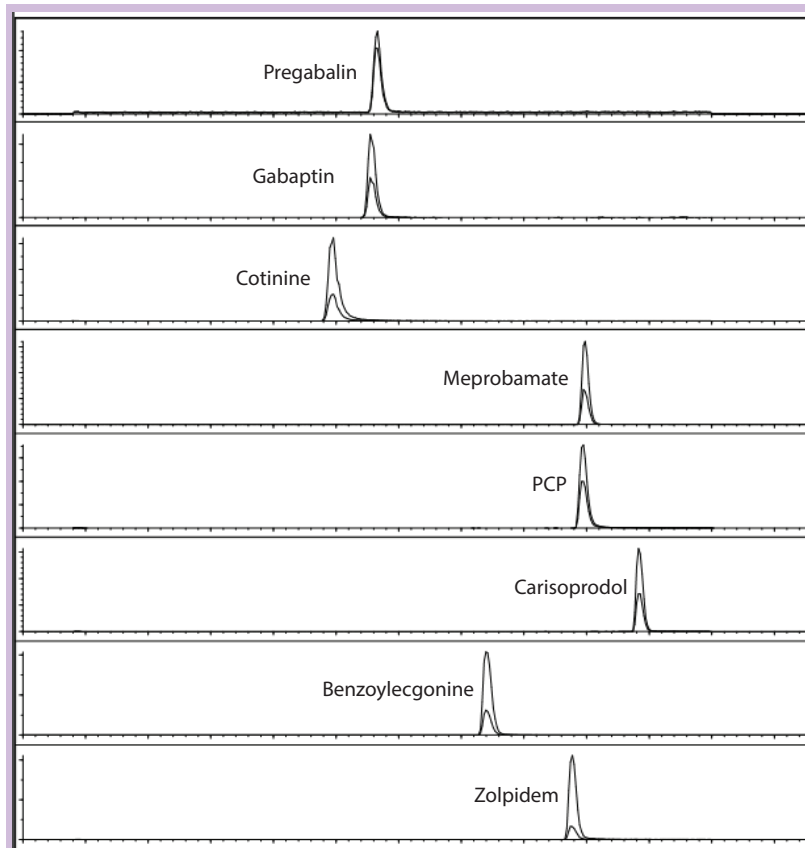
## Others-Gazelle



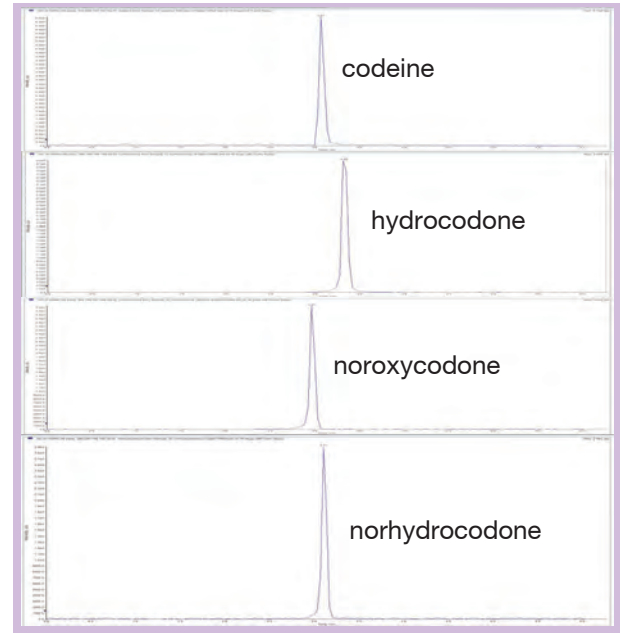
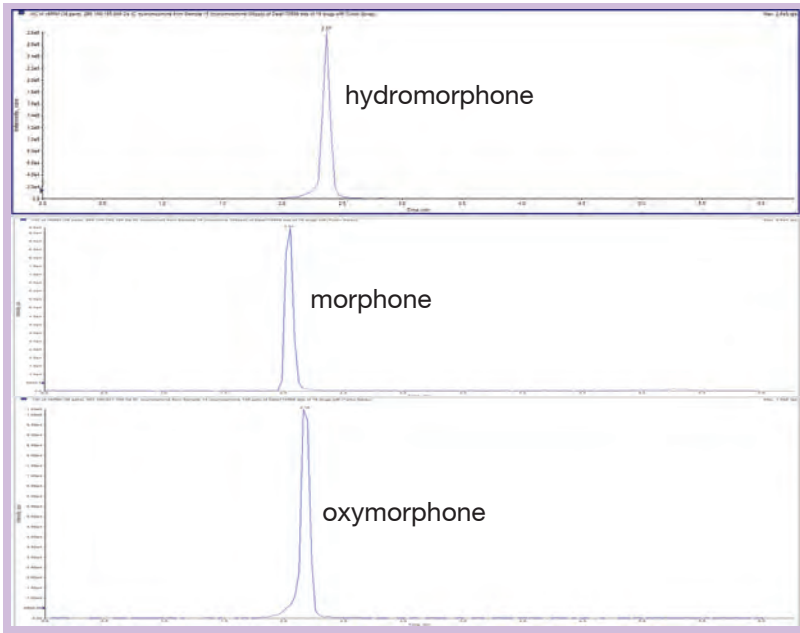
## Others-Gazelle



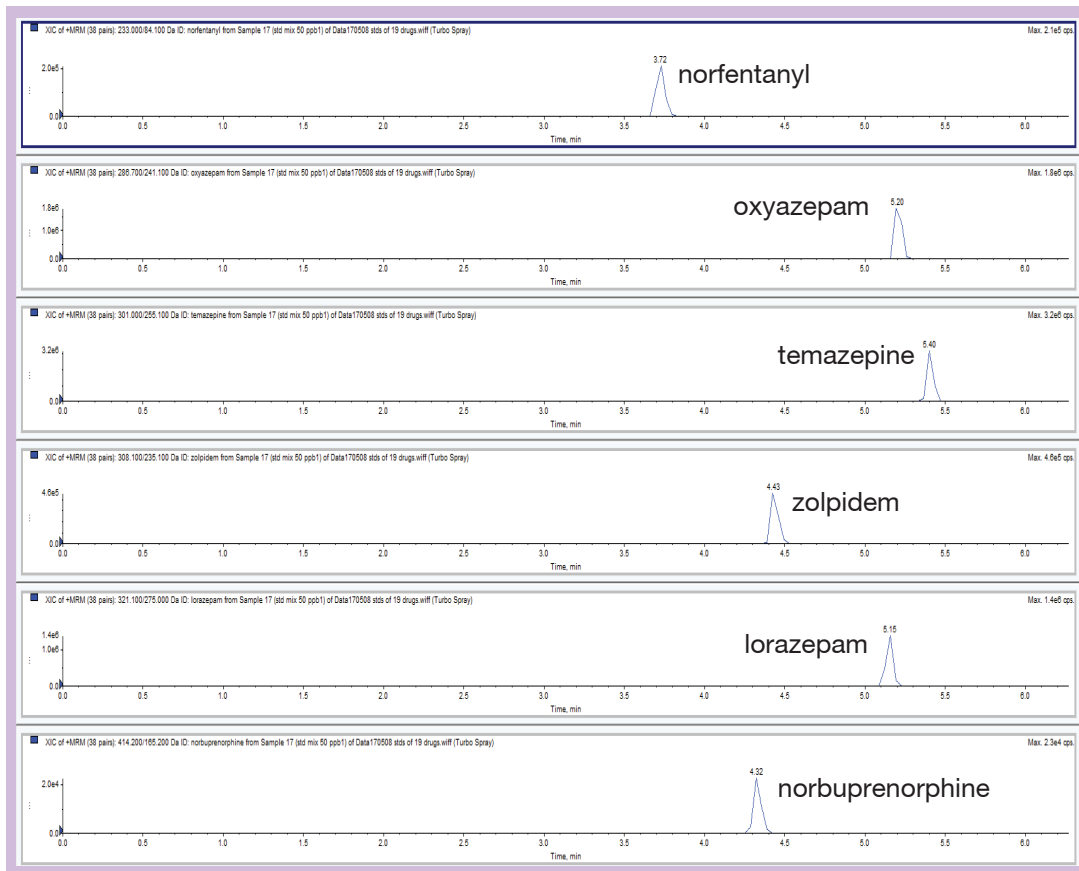
## Recreation Drugs-Gazelle



## 5. Separation of Main drugs panel by Gazelle biphenyl UHPLC- MS/ MS

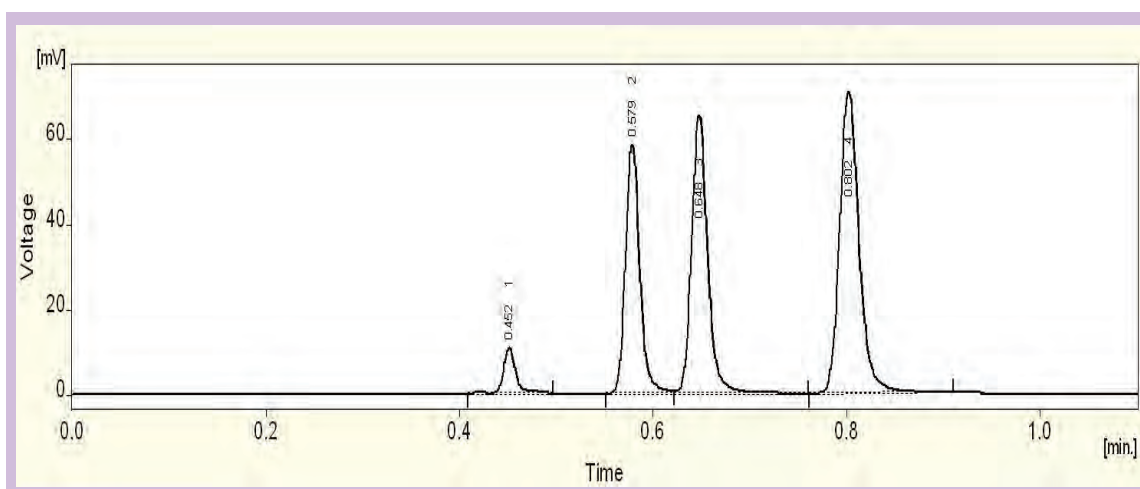


**Gazelle biphenyl UHPLC Column, 2.1x50mm**  
**Gradient mobile phases, total run time: 6.3 min**



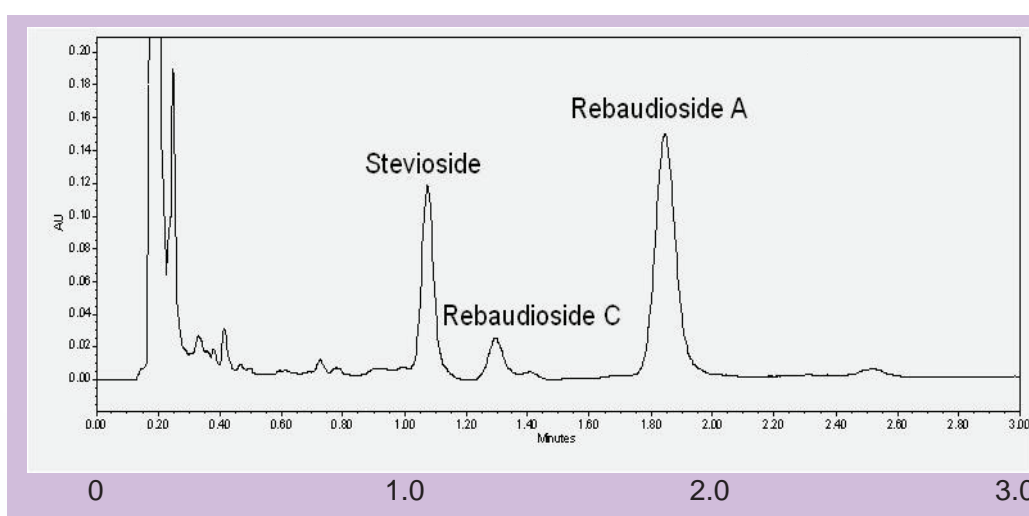
**Gazelle biphenyl UHPLC Column, 2.1x50mm**  
**Gradient mobile phases, total run time: 6.3 min**

## 6. Separation of Phthalates on Gazelle amino UHPLC



Column	Gazelle Amino, 1.7 micron	Naphthalene, R <sub>1</sub>	0.452 (27 sec)
Column Size	3.0 mm ID x 50 mm long	Dipropyl Phthalate, R <sub>2</sub>	0.579 (35 sec)
Mobile Phase	97/3 heptane/2-propanol	Diethyl Phthalate, R <sub>3</sub>	0.648 (39 sec)
Temperature	24 °C	Dimethyl Phthalate, R <sub>4</sub>	0.802 (48 sec)
Detection	UV at 254 nm		
Flow Rate	0.7 mL/min		
System Backpress	114 psi		

## 7. Separation of steviol glycosides from stevia leaf extract by Gazelle Amino UHPLC column



Stevioside, R <sub>1</sub>	0.19 mg/mL 80/20 ACN/H <sub>2</sub> O	1.074 min
Rebaudioside C, R <sub>2</sub>	0.04 mg/mL 80/20 ACN/H <sub>2</sub> O	1.295 min
Rebaudioside A, R <sub>3</sub>	0.41 mg/mL 80/20 ACN/H <sub>2</sub> O	1.846 min

UHPLC	Waters Acquity H-Class	Mobile Phase	80: Acetonitrile 20: Water
Column	Gazelle Amino, 1.7 micron	Flow Rate	0.8 mL/min
Column Size	2.1 mm ID x 50 mm long	System Backpress	5241 psi
Temperature	40 °C		
Detection	UV at 204 nm		
Injection	5 µL		