Sifto™

GHOST BUSTER COLUMN

ZODIAC®
Life Sciences

About the Product

Reversedphase gradient HPLC is an essential and extremely powerful technique in liquid chromatography, but some unknown peaks called Ghost peaks appear in chromatogram reducing analysis reliability particularly in trace sample component analysis.

There are many possible causes for ghost peaks including mobile phase solvents,mobile phase containers, flow lines, pump, filters, gradient mixer etc. A chromatogrammay contain ghost peaks from a variety of these sources and this can make the overallresolution of ghost peak problems quite difficult. The primary being UV absorbing organic impurities in the mobile phase which are eluted in the gradient process.

What Sifto Ghost Buster Column can do?

- Sifto Ghost Buster Column can very efficiently absorb the impurities from mobile phase and eliminates the risk of ghost peaks interfering with target peaks and make the gradient analysis reliable.

- Longer Column life (Main column) when used with Sifto Ghost Buster Column.

- Stable over a wide range of pH, organic solvents and aqueous buffers.

- Easy to install with all HPLC systems.

Installation

Installed between the gradient mixer and the sampler, Ghost Buster column can trap most ghost peaks before HPLC analysis.
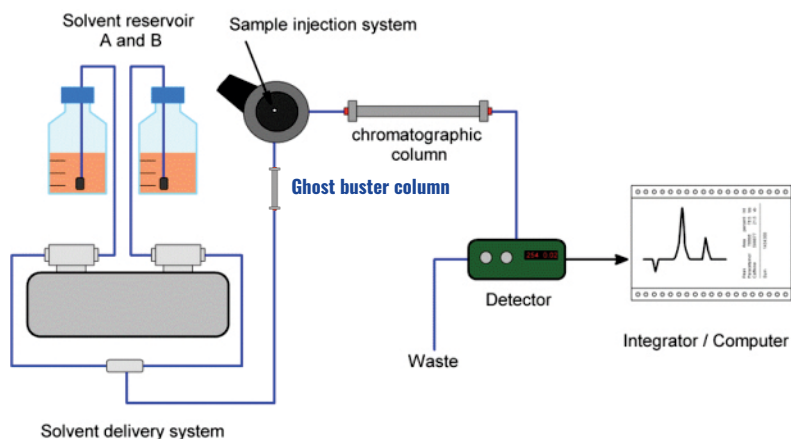
▶ *Why fear of Ghost peaks when Sifto Ghost Buster column is with you*

▶ *Install Sifto Ghost Buster column and have a reliable Ghost peak free analysis*

▶ *Trouble with unknown peaks in gradient analysis install Sifto Ghost Buster column*
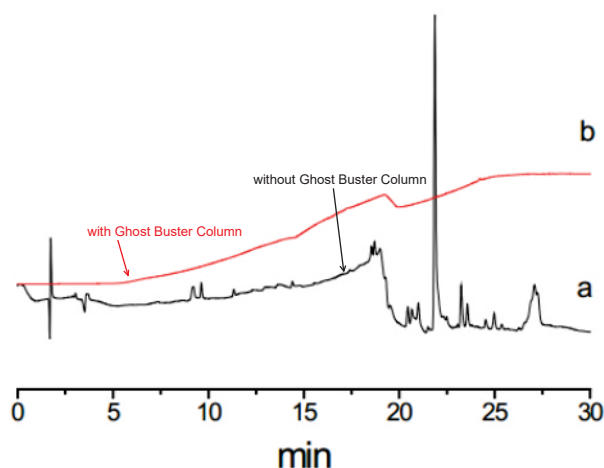
Applications

Sample 1

Condition

Column :	Zodiac C18, 250mm x 4.6,5μm
Flow Rate :	1.0 mL/min
Injection Volume :	10 μL
Wavelength :	210 nm Column
Column Temperature :	40^0C
Sample Preparation Solution:	ultrapure water
Mobile Phase A :	ultrapure water
Mobile Phase B:	acetonitrile

Gradient Program

Time（min）	Mobile Phase A	Mobile Phase B
0	90	10
20	10	90
30	10	90
30.1	90	10
38	90	10

Sample 2

Condition

Column :	Zodiac C18, 250mm x 4.6,5μm
Flow Rate :	1.0 mL/min
Injection Volume :	10 µL
Wavelength :	210 nm Column
Column Temperature :	40^0C
Sample Preparation Solution:	Ultra Pure Water
Mobile Phase A :	11.54g/L ammonium acetate, adjust pH to 4.0 with glacial acetic acid
Mobile Phase B:	acetonitrile

Gradient Program

Time（min）	Mobile Phase A	Mobile Phase B
0	98	2
10	80	20
20	40	60
35	20	80
40	20	80
41	98	2
50	98	2
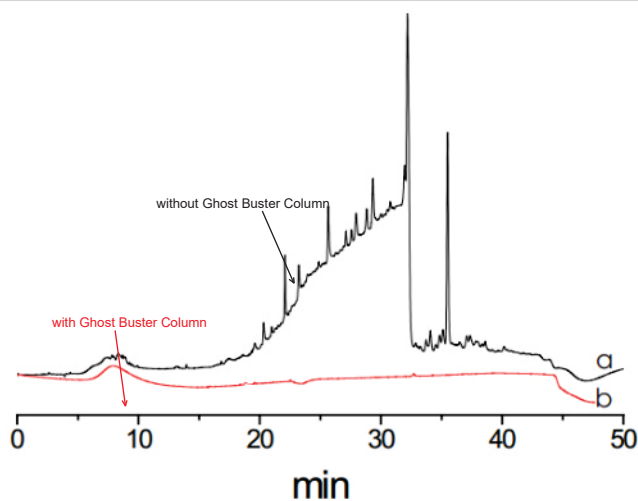
Advantages

- **Remove ghost peaks efficiently**
- **Compatible with water and organic solvents**
- **Easy to install**
- **Trace detection**
- **Can be used multiple times**

Situations not Suitable for Ghost Buster Column

Ionparing solvent

If ionpairing reagents are used in the analysis, it is possible that the reagents may be retained by the GhostBuster column, impacting the analysisretention time and peak shape.

Amines additives

If amines additives, such as ammonia andtriethylamine, are used in the solvent, the peakshape may change.

Note:

- It should be noted that not all impurities can be removed from the mobile phase.
- It is not recommended to flush the GhostBuster column with 100% water for a long time.
- GhostBuster column is installed between the gradient mixer and the sampler. If it is installed like a guard column, target peaks may disappear.
- GhostBuster column's service life differs by analysis conditions, mobile phase and its purity. New column is recommended when result is not ideal.

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