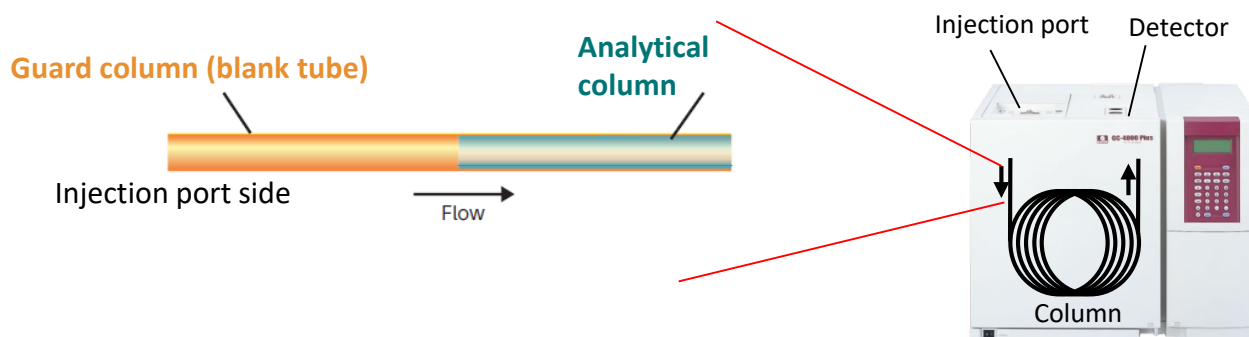


InertCap ProGuard is a capillary column with an integrated guard column, which protects the column from impurities that may be present in the sample.

With InertCap ProGuard, the life of the capillary column can be extended, even when analyzing samples containing large quantities of contamination.

What is InertCap Pro Guard?

An analytical capillary column with built-in guard column “InertCap Pro Guard”



What is InertCap Pro Guard?

- A column with integrated blank tube that protects the column from contamination in the sample.
- There is no need to worry about leakage at the connection because the blank tube and analysis column are fully integrated.
- Even when the contaminated part at the tip of the column is removed, the separation will not be affected. Running costs can be greatly reduced.

In analysis that uses a capillary column, there are methods that employ a blank tube without a liquid phase coating connected to the column inlet in order to protect the analytical column from contamination present in the sample.

However, if a blank tube is connected using a union etc., there is a risk that carrier gas may leak from the connections.

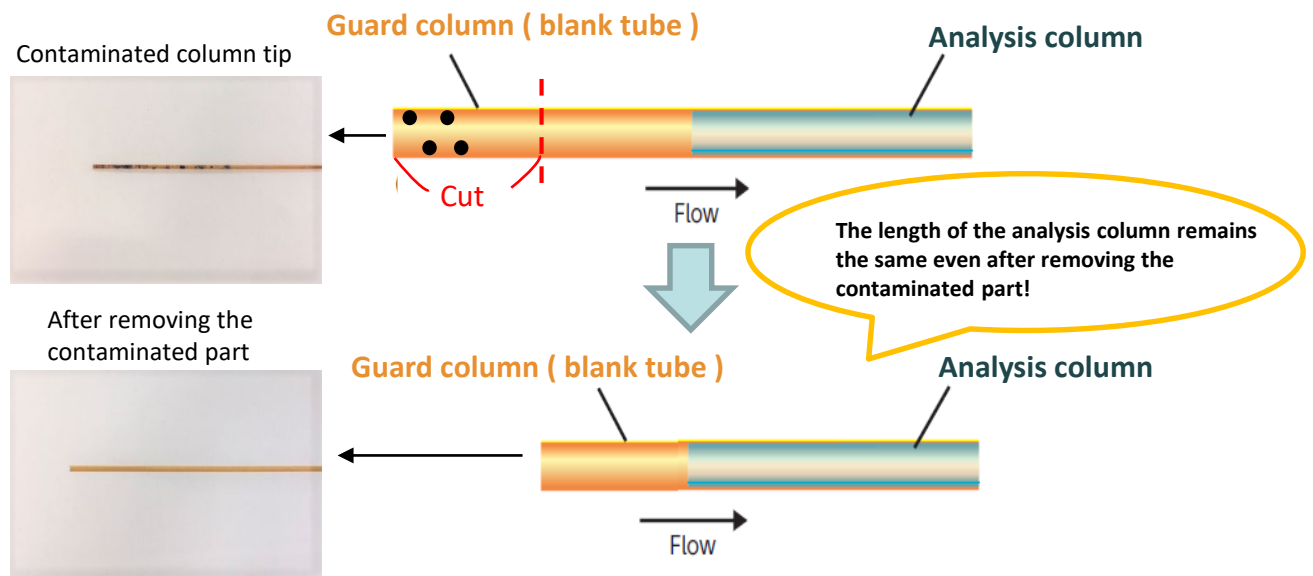
InertCap ProGuard is a product in which a blank tube is integrated with the column to solve the problem of carrier gas leakage. Since the same inner treatment is used for both the guard column and the analysis column, InertCap ProGuard can be used as a column that is highly inert with few active adsorption sites.

Effect on separation of cutting the column inlet

Contamination from injected samples, etc. is considered to be one of the main causes of deterioration in a capillary column. When this occurs the column may be regenerated by removing a small portion from the inlet that has become contaminated (approx. 30 to 50 cm).

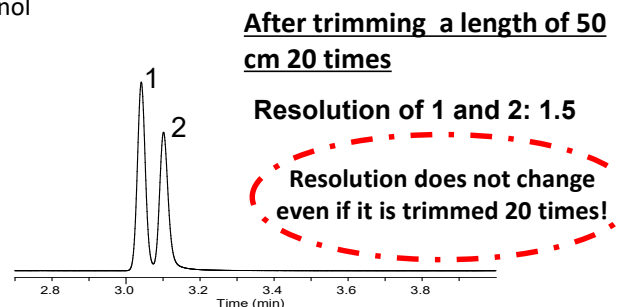
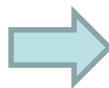
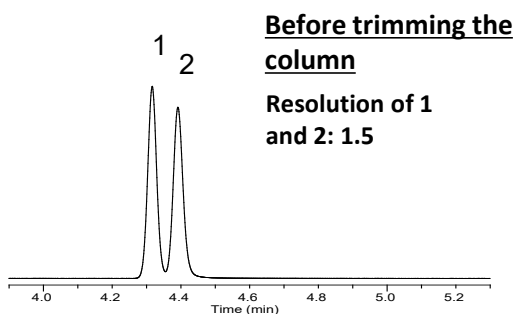
However, when the capillary column is used after being repeatedly trimmed, the length will gradually become shorter, and sufficient separation may not be obtained.

When InertCap ProGuard is used, removal of the contaminated areas does not shorten the analytical column, and hence does not affect the separation.



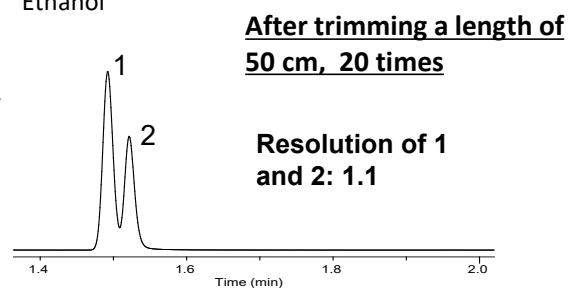
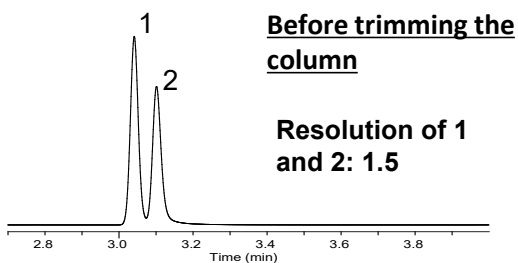
InertCap ProGuard (guard column 10m)

1. 2-Propanol
2. Ethanol



Conventional column (without a guard column)

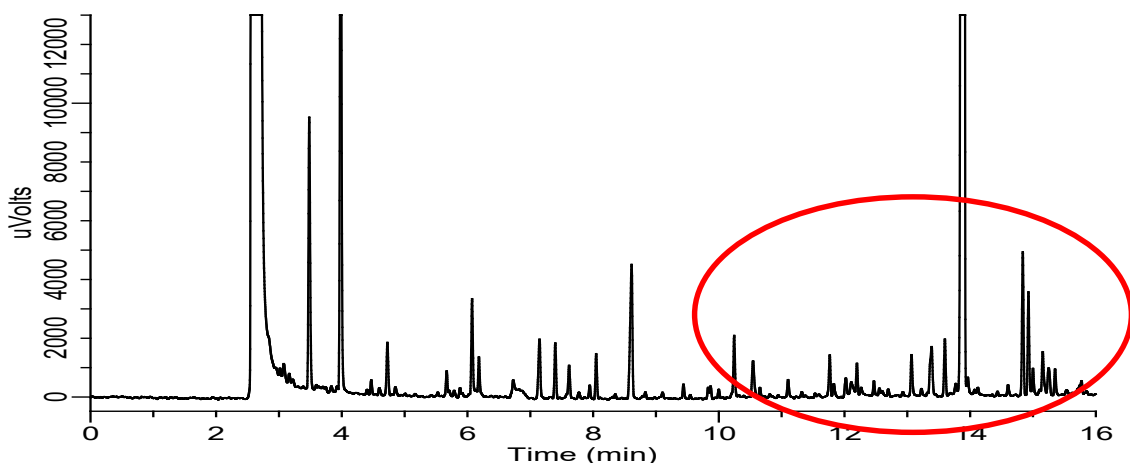
1. 2-Propanol
2. Ethanol



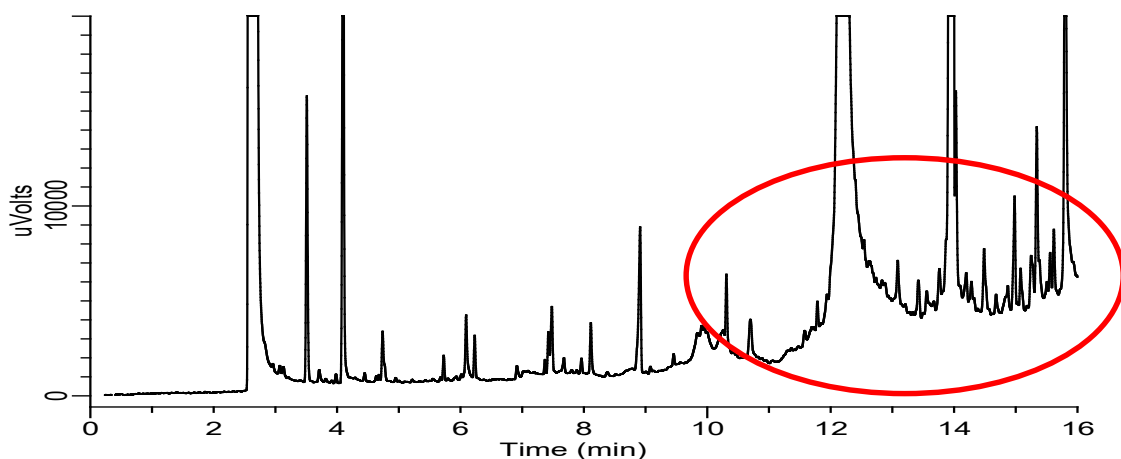
Example of recovering column performance by trimming the column inlet

Non-volatile substances that contaminate the column tend to accumulate at the inlet of the column, and the performance of the column deteriorates as the number of sample injections increases. However, the column performance may be restored by removing the contaminated part from the column inlet.

<1st injection>



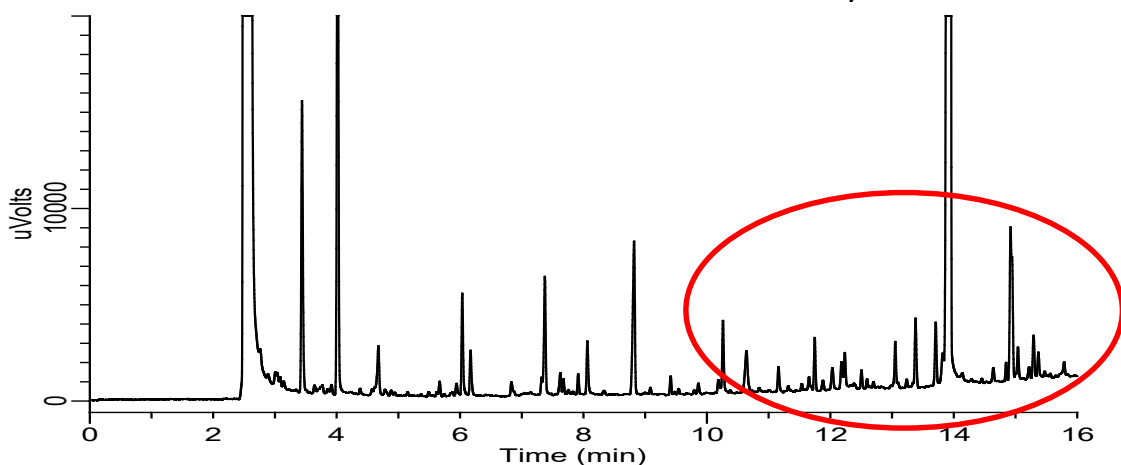
< 350 times injection >



<After trimming the column>



After trimming the tip of the column by 50 cm



InertCap ProGuard

Product Name	I.D.(mm)	Length(m)	Film Thickness (μm)	Guard Column Length(m)	Max. Temperature (°C)	Cat.No.
InertCap 1MS	0.25	30	0.25	2	iso.325-prog.350	1010-12172
				5	iso.325-prog.350	1010-12173
				10	iso.325-prog.350	1010-12174
InertCap 1	0.25	30	0.25	2	iso.325-prog.350	1010-11172
				5	iso.325-prog.350	1010-11173
				10	iso.325-prog.350	1010-11174
InertCap 5MS/Sil	0.25	30	0.25	2	iso.325-prog.350	1010-15172
				5	iso.325-prog.350	1010-15173
				10	iso.325-prog.350	1010-15174
InertCap 5MS/NP	0.25	30	0.25	2	iso.325-prog.350	1010-18941
				5	iso.325-prog.350	1010-18942
				10	iso.325-prog.350	1010-18943
InertCap 5	0.25	30	0.25	2	iso.325-prog.350	1010-18172
				5	iso.325-prog.350	1010-18173
				10	iso.325-prog.350	1010-18174
InertCap Pure-WAX	0.25	30	0.25	2	iso.260-prog.260	1010-68490
				5	iso.260-prog.260	1010-68491
				10	iso.260-prog.260	1010-68494

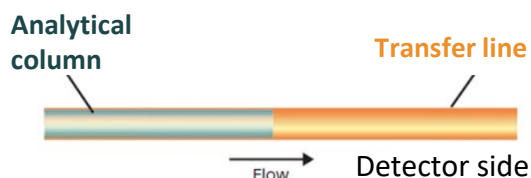
Note) Please contact your GL Sciences representative for types and sizes other than listed above.

With InertCap ProGuard, the length of the guard column can be selected from the following: 2 m, 5 m, and 10 m.

Introduction of related products

Analytical capillary column with built-in transfer line.

InertCap T.L..



InertCap T.L. is a column in which the capillary column and a transfer line (blank tube) are integrated.

Since the liquid phase is not coated on the connection part to the detector, which is always hot, partial deterioration of the liquid phase can be prevented.

Since the transfer line is treated with an inert treatment, it can be used with confidence when analyzing highly adsorptive compounds.

InertCap T.L.

Product Name	I.D.(mm)	Length(m)	Film Thickness (μm)	Transfer Line Length(m)	Max. Temperature (°C)	Cat.No.
InertCap 1MS	0.25	30	0.25	2	iso.325-prog.350	1010-12192
InertCap 5MS/Sil	0.25	30	0.25	2	iso.325-prog.350	1010-15192
InertCap Pesticides	0.25	30	0.2	2	iso.325-prog.350	1010-15191
InertCap Pure-WAX	0.25	30	0.25	2	iso.260-prog.260	1010-68492
InertCap Pure-WAX	0.25	60	0.25	2	iso.260-prog.260	1010-68493

Note) Please contact your GL Sciences representative for types and sizes other than listed above.

It is also possible to manufacture a capillary column in which both the guard column and the transfer line are integrated. Please contact us for details.

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