

Instruction manuals

Guard column

FlexFire, FlexFire Fusion, Develosil

Thank you for purchasing Nomura Chemical's Guard Column.

Please be sure to read this instruction manual carefully and use the product correctly.

Please note that we cannot be held responsible for any damage or deterioration that may occur or the effects on this column if it is used without following the precautions in the instruction manual.

About guard columns

This product is available in two types: inner diameter 4.6mm x length 10mm and inner diameter 8.0mm x length 10mm. Both guard columns contain a packing material that protects the analytical column through chemical adsorption. The applicable column inner diameters are as follows.

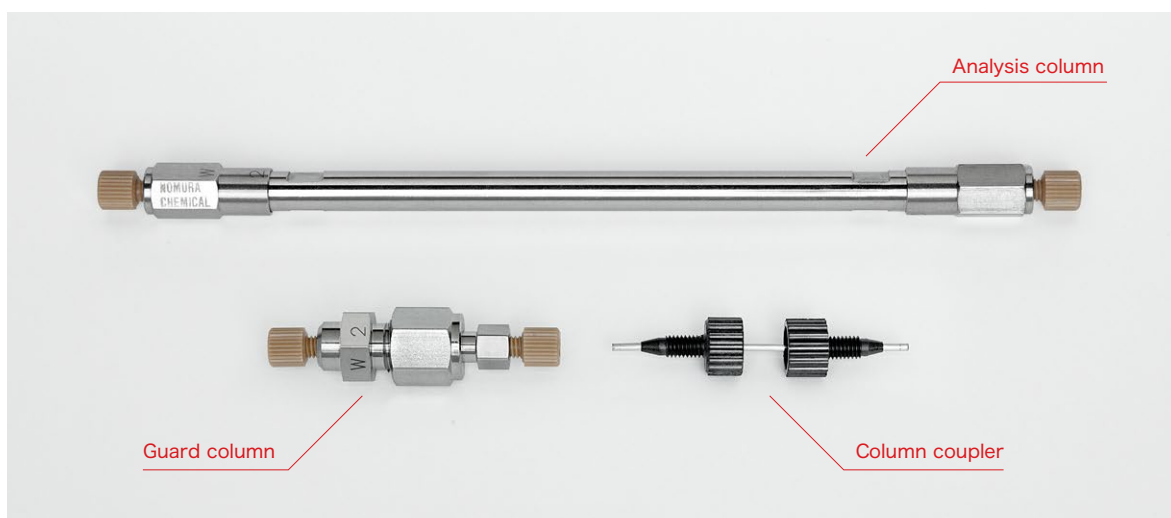
Guard column [i.d. x Length]	Compatible i.d.
4.6 x 10mm	i.d. 4.6 ~ 6mm
8.0 x 10mm	i.d. 7.8 ~ 10mm

How to choose a guard column

It is best to select the same packing material and the same particle size, but it is also possible to select a HILIC type for the guard column and a reversed phase type for the analytical column, taking into account the compound to be adsorbed.

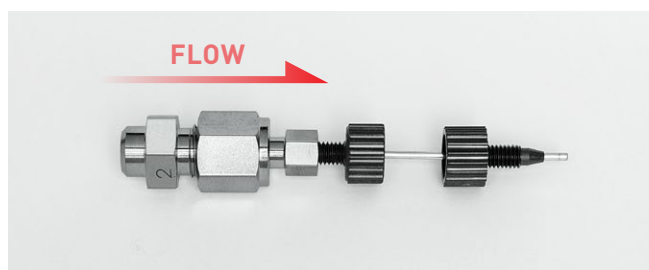
How to use 01

A part called a coupler is required to connect this product to an analytical column. This coupler consists of a stainless steel tube with a suitable inner diameter (0.1-0.2mm recommended) and a connector, so you can use the parts you already have.



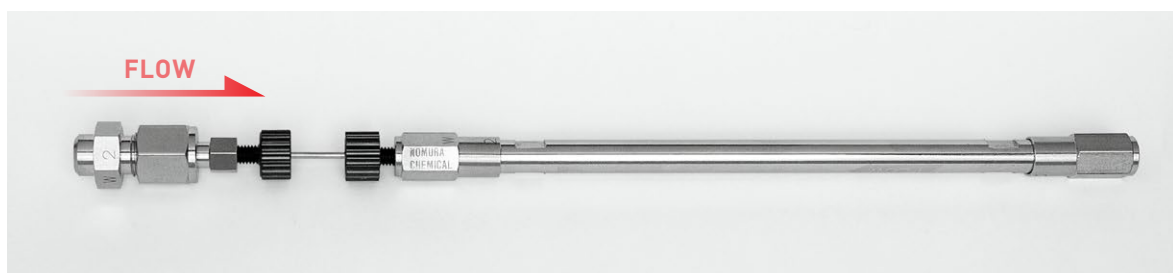
How to use 02

First, connect the guard column and coupler. At this time, it is necessary to connect firmly to avoid dead volume. After connection, pass the mobile phase through.



How to use 03

Next, connect the guard column and analytical column. At this time, connect firmly so that no dead volume occurs. After the desired mobile phase is passed through and equilibration is completed, the analysis can begin.



Maintenance

Guard columns require maintenance just like analytical columns. Trapped compounds may eventually desorb and flow into the analytical column.

- a. When cleaning, be sure to set it to the "02" state before passing the cleaning solvent through. The cleaning solvent is generally 50% acetonitrile or 50% methanol, but it is desirable to select a solvent that takes into account the characteristics of the adsorbed compound.
- b. After cleaning, close the container tightly and store it in an environment where it will not fall.

Estimated replacement

Guard columns also undergo deterioration with use. If the following phenomena occur, you will need to purchase a new product.

- Despite cleaning, a large amount of pressure is applied when only the guard column is passed through.
- The peak shape is abnormal, such as a shoulder peak in the obtained chromatogram.

In either case, verification using only analytical columns is required, so please use the above items as a guide.

