



Column Certificate of Analysis

Every Regis column is tested to ensure performance and ships with a certificate of analysis. Column-specific information, such as material lot number, column serial number, a test chromatogram with operating conditions, and performance results are included with each report.

Recommended Conditions for Column Use

To condition the column, pass approximately 10 to 15 column volumes (10 to 15 mL for the 3 cm column; 20 to 30 mL for the 10 cm column) of mobile phase through the column or until a stable base line is achieved. Make several repetitive injections of one compound to insure identical retention times of that compound. Once the retention times are identical, the system is fully equilibrated and ready for use.

pH Range

The recommended pH range for silica-based (specific Regis type) columns is 2.5 to 7.5. Low pH (<2) can lead to hydrolysis of the bonded phase, while high pH (>8) can lead to silica dissolution.

Operating Temperature

Selectivity is often enhanced at lower operating temperatures. The recommended range is 20 - 30° C. Do not exceed the upper temperature limit of 60° C.

Pressure

IAM columns are stable at pressures up to 6,000 psi. Extended use at elevated pressures may shorten column lifetime.

Modifier

When mobile phase modifiers are used, the column should be flushed thoroughly with the same mobile phase, without the modifier present, before flushing the column with storage solvent. When acidic or basic modifiers, such as trifluoroacetic acid (TFA) or N,N-diethyamine (DEA), are used as mobile phase modifiers, it is satisfactory to leave this mobile phase in the column overnight. However, if the column will not be used for several days it is recommended that the system be flushed with mobile phase that does not contain modifiers so that the column is not damaged.

Buffer Concentration

All buffers should be made with HPLC grade water and filtered prior to use. The pH of the buffers should be adjusted to match the closest physiological pH of the samples.

Column Storage

To clean, reverse the column, then wash with 10 to 15 column volumes of water, followed by 10 to 15 column volumes of acetonitrile. When the column is to be taken out of service for an extended period, acetonitrile should be used as the storage solvent.

The column is to be kept wet during storage. Each column is shipped with two removable end plugs, to prevent the drying of the column bed. Save these plugs and re-install them whenever the column is removed from the HPLC system.

Troubleshooting

Increased backpressure, changes in peak shape, and/ or shifting retention times may indicate the need to perform column maintenance.

For more information on using IAM columns for drug discovery, visit www.registech.com for our:

- Technical brochure
- Screening instructions
- "Chromatography on Immobilized Artificial Membrane" white paper
- "Rapid Biomimetic Screening of Drug-Membrane Affinity Using IAM HPLC" poster
- Safety Data Sheets
- References

Scan the QR code to visit the IAM.PC.DD2 home page





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