

## Lab Equipment



### Tec-Control™ Chromatography Systems

#### Tec-Control Aluminum Breakthru Kit

The Aluminum Breakthru Kit provides a rapid, easy and inexpensive way to test aqueous solutions, particularly pertechnetate generator eluate, for trace quantities of aluminum. Aluminum forms an intense red precipitate with the indicator paper, and the intensity of the color is directly proportional to the amount of aluminum in the solution. The USP allows a concentration of aluminum ion in an injection  $\leq 10$  micrograms per milliliter ( $10 \mu\text{g/ml}$ ) in technetium 99m eluate prepared from Molybdenum 99 formed as a result of uranium fission.

Simple Procedure:

1. Place a drop of the eluate or solution to be tested on the indicator paper. The best procedure is to form a hanging drop using a 19-22G needle.
2. Place a drop of the standard aluminum solution on the indicator paper. Use the same size drop.
3. Compare the intensity of the red spot formed. If the eluate spot is less intense than the standard solution, the eluate contains less than  $10 \mu\text{g/ml}$  aluminum.

#### References:

*Miniaturized Chromatographic Quality-Control Procedures for Tc-99m Radiopharmaceuticals*; A. Michael Zimmer and Dan G. Pavel, *Journal of Nuclear Medicine*, Vol. 18/12, Dec. 1977, pg. 1230.  
*Technical Parameters Associated with Miniaturized Chromatography Systems*; Raimund A. Taukulis, A. Michael Zimmer, Dan G. Pavel and Bhupendra A. Patel, *University of Illinois Medical Center, Chicago, Illinois, Journal of Nuclear Medicine Technology*, Vol. 7/1.

**150-780** Chromatography Kit, Tec-Control Aluminum Breakthru Kit includes: Aluminum standard, 5 ml,  $10 \mu\text{g/ml}$ , 50 indicator strips and manual

**150-785** Chromatography Kit, Tec-Control Aluminum Breakthru Kit includes: Aluminum standard, 5 ml,  $5 \mu\text{g/ml}$ , 50 indicator strips and manual

#### Chromatography Strips and Solvents

Tec-Control Chromatography tests the radiochemical purity of specific Tc-99m-labeled radiopharmaceuticals. The accompanying chart shows which strips and solvents are required to perform each individual test. Some solvents must be purchased separately (see Sigma-Aldrich chart) due to hazardous material shipping restrictions. Detailed instruction manuals are packaged with each strip container, although our Radiopharmaceutical QC Procedure Manual (150-000) explains paper chromatography in greater detail.

#### Chromatography Strips

- 150-001** Strips, RED, 50/pkg
- 150-005** Strips, BLACK, 50/pkg
- 150-025** Strips, YELLOW, 50/pkg
- 150-122** Strips, ORANGE, 50/pkg
- 150-125** Strips, LIGHT BLUE, 50/pkg
- 150-126** Strips, BROWN, 50/pkg
- 150-127** Strips, GREEN, 50/pkg
- 150-130** Strips, GOLD, 50/pkg
- 150-771** Strips, DARK GREEN, 50/pkg
- 150-951** Strips, LIME, 50/pkg
- 150-952** Strips, PEACH, 50/pkg
- 150-971** Strips, TEAL, 50/pkg
- 150-991** Strips, PINK, 50/pkg
- 150-782** Strips, ALUMINUM, 50/pkg

#### Chromatography Solvents

- 150-160** Solvent, 20% Sodium Chloride, 30 ml
- 150-773** Solvent, DTPA, 5 ml
- 150-781** Solvent, Aluminum Standard, 5 ml,  $10 \mu\text{g/ml}$
- 150-783** Solvent, Aluminum Standard, 5 ml,  $5 \mu\text{g/ml}$

#### Related Items:

- 150-960** Developing Vials, Borosilicate Glass, 10 ml, 288/case (used for most Tec-Control testing)
- 150-961** Developing Vials, Borosilicate Glass, 5 ml, 144/case (used for Sestamibi & Tetrofosmin)
- 0645-0026** Forceps, Curved, locking, 9.5" l (24.1 cm)
- 0645-0025** Forceps, Straight, locking, 9.5" l (24.1 cm)
- 066-536** Forceps, Curved, non-locking, 12.5" l (31.7 cm)