

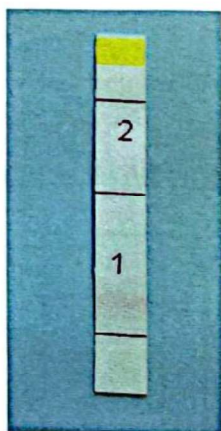
## TECHNETIUM Tc-99m SUCCIMER (Tc-99m DMSA, Tc-99m DIMERCAPTOSUCCINIC ACID)

### RADIOCHEMICAL IMPURITIES:

Technetium-99m pertechnetate and Tc-99m hydrolyzed reduced technetium.

### QUALITY CONTROL METHOD:

#### CHROMATOGRAPHY SYSTEM:



Silicic acid (SA) impregnated paper (0.7 x 6 cm) with Acetone. Yellow color-coded chromatography strip. Free Tc-99m pertechnetate migrates with the solvent front ( $R_f=1.0$ ) whereas Tc-99m DMSA remains at the origin ( $R_f=0.0$ ). The cut line is located at  $R_f=0.6$ . With this chromatography system, one cannot distinguish between Tc-99m DMSA and hydrolyzed reduced Tc-99m.

#### CHROMATOGRAPHY PROCEDURE:

Use Single-Strip Procedure (PROCEDURE 1A). Add acetone (0.8 to 1.5 ml) to serum or scintillation vial. Following radiopharmaceutical spotting, immediately place the yellow strip in acetone and allow solvent to migrate to solvent front line. Remove strip, cut at cut line into sections 1 and 2 and count for activity. Calculations are performed as outlined in SINGLE STRIP PROCEDURE 1A.