Unmarked Proposed Labeling

NeoTect®
Kit for the Preparation of Technetium Tc 99m Depreotide Injection

Rx only

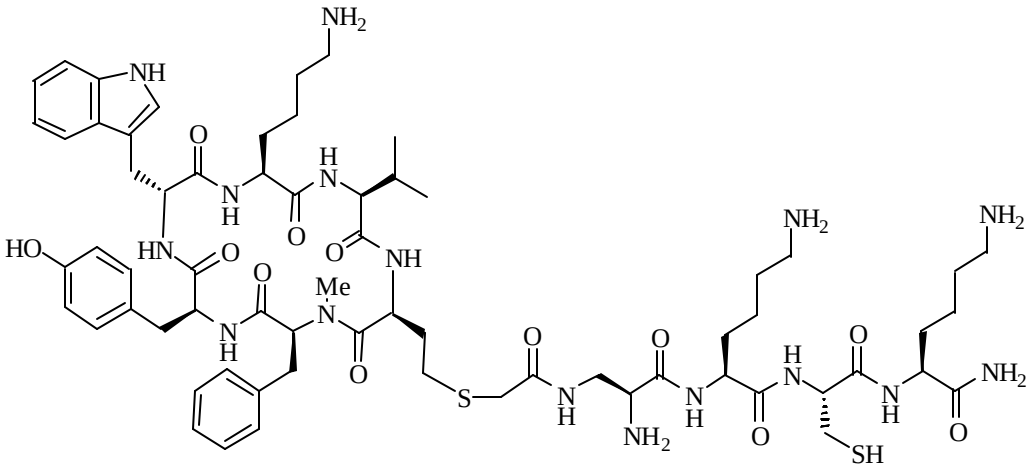
DESCRIPTION

NeoTect® (Kit for the Preparation of Technetium Tc 99m Depreotide Injection) is intended for use in the preparation of Technetium Tc 99m Depreotide, a diagnostic radiopharmaceutical to be used by intravenous injection. Each vial contains a sterile, non-pyrogenic lyophilized mixture of 47 µg of Depreotide, 75 mg of sodium glucoheptonate dihydrate, 50 µg of stannous chloride dihydrate (with a minimum stannous tin content of 20 µg), 100 µg edetate disodium dihydrate, 10 mg of sodium iodide, and sufficient sodium hydroxide or hydrochloric acid for adjustment to pH 7.4 prior to lyophilization. The lyophilized powder is sealed under a nitrogen atmosphere with a rubber closure. The product contains no antimicrobial preservative.

Chemical Name:

Cyclo (L-homocysteinyl-N-methyl-L-phenylalanyl-L-tyrosyl-D-tryptophyl-L-lysyl-L-valyl), (1→1')-sulfide with 3-[(mercaptoacetyl)amino]-L-alanyl-L-lysyl-L-cysteinyl-L-lysinamide

The structural formula of Depreotide is:



When sterile, non-pyrogenic Sodium Pertechnetate Tc 99m Injection, in 0.9% Sodium Chloride Injection, U.S.P., is added to the vial, a Technetium Tc 99m complex of Depreotide is formed.

PHYSICAL CHARACTERISTICS

Technetium Tc 99m decays by isomeric transition with a physical half-life of 6.02 hours. The photon that is useful for imaging studies is listed in Table 1.

Table 1. Principal radiation emission data for Technetium Tc 99m

Radiation	Mean Percent per Disintegration	Mean Energy (keV)
Gamma-2	89.07	140.5

External radiation

The specific gamma-ray constant for Technetium Tc 99m is 5.4 microcoulombs/kg·MBq·hour (0.78 R/mCi·hour) at 1 cm. The first half-value thickness of lead for Technetium Tc 99m is 0.17 mm. A range of values for the relative attenuation of the radiation emitted by this radionuclide that results from the interposition of various thicknesses of lead is shown in Table 2. For example, the use of a 0.25 cm thickness of lead will decrease the external radiation exposure by a factor of 1,000.

Table 2. Radiation attenuation by lead shielding.

Lead Shield Thickness (cm)	Coefficient of Attenuation
0.017	0.5
0.08	10^{-1}
0.16	10^{-2}
0.25	10^{-3}
0.33	10^{-4}

To correct for physical decay of this radionuclide, the fractions that remain at selected intervals relative to the time of calibration are shown in Table 3.

Table 3. Physical decay chart: Technetium Tc 99m half-life 6.02 hours.			
Hours	Fraction Remaining	Hours	Fraction Remaining
0	1.000	7	0.447
1	0.891	8	0.398
2	0.794	9	0.355
3	0.708	10	0.316
4	0.631	11	0.282
5	0.562	12	0.251
6	0.501	--	--

CLINICAL PHARMACOLOGY

General

Technetium Tc 99m Depreotide Injection is a diagnostic radiopharmaceutical based upon a synthetic peptide with high affinity binding to somatostatin receptors (SSTR) in normal and abnormal tissues. (See **Pharmacodynamics** section for details).

Pharmacokinetics

Technetium Tc 99m radioactivity pharmacokinetic parameters were evaluated after a single intravenous administration of Depreotide containing 15-20 mCi of Technetium Tc 99m and 47 µg of Depreotide in normal subjects and in patients with selected disorders. The pharmacokinetic values were estimated from data corrected for radioactivity decay. The total radioactivity in the blood exhibited three-exponential phases with the pharmacokinetic parameters shown in Table 4.

Table 4. Pharmacokinetics Parameters of Technetium Tc 99m Depreotide Radioactivity [(a)]

Subjects	Effective Half-Life			Vss	CL total	CL renal
	t_a (min)	$t_ß$ (min)	$t_γ$ (hour)	(L/kg)	(mL/min/kg)	(mL/min/kg)
Normal (n=9)	4.3 ± 2.5	43.6 ± 11.5	22.4 ± 11.90	1.56 ± 0.85	2.12 ± 1.3	0.37 ± 0.22
Hepatic dysfunction (n=3)	4.0 ± 0.4	48.3 ± 7.5	18.0 ± 3.3	1.7 ± 0.4	2.45 ± 0.3	0.24 (n=1)
Renal dysfunction (n=3)	2.9 ± 0.7	52.0 ± 9.9	17.2 ± 8.2	1.49 ± 0.95	1.49 ± 0.72	Not evaluated
Lung cancer (n=2) [(b)]	4.5, 9.1	62, 72	12.6, 16.9	0.44, 1.43	1.64, 1.64	Not evaluated

(a) Only radioactivity was measured. Data expressed as mean value ± SD (n) where "n" is the number of subjects or patients.
(b) Only two lung cancer patients were studied; the calculated values for both patients are presented.

The pharmacokinetics of Depreotide peptide without the Technetium Tc 99m have not been studied.

Protein Binding

In vivo plasma protein binding of total radioactivity (5-min plasma sample) was determined by the centrifuge assisted ultrafiltration method. Mean protein binding of Depreotide total radioactivity ranged from 11-21% (Table 5).

External whole-body gamma scintigraphy showed highest localization of radioactivity in liver and kidney.

Table 5. Plasma protein binding data.*	
Subjects	Protein binding % bound
Normal	11.4 ± 2.10 (n=11)
Hepatic dysfunction	11.4 ± 1.89 (n=5)
Renal dysfunction	11.7 ± 2.05 (n=4)
Lung cancer	20.7 (n=1)
*Data expressed as mean value ± SD	

Metabolism

The metabolism and disposition of Depreotide peptide without the Technetium Tc 99m have not been studied in humans. Preliminary data from the elimination of radioactivity show that in patients and healthy volunteers at four hours after a single intravenous dose of depreotide (containing 15-20 mCi of Technetium Tc 99m and 47µg of depreotide), 71-84% of the Technetium Tc 99m in blood and 61-64% of the Technetium Tc 99m in urine are bound to depreotide. The fate of the remaining percentages has not been evaluated.

Elimination

In healthy subjects, 12% of the radioactivity is eliminated by renal clearance, the majority of which occurs by 4 hours. The elimination of the remaining 88% radioactivity has not been studied.

SPECIAL POPULATIONS

The pharmacokinetics of the Technetium Tc 99m Depreotide Injection have not been determined in geriatric, pediatric, renally impaired and hepatically impaired patients.

Gender Effect: In a study of 17 subjects (10 men and 7 women) as shown in Table 6, women appeared to have less total clearance of radioactivity.

Table 6. Gender Differences in Pharmacokinetics Parameters of Technetium Tc 99m Depreotide Radioactivity*

Parameter	Male (n=10)	Female (n=7)
CL total (mL/min/kg)*	2.3 ± 1.1	1.6 ± 0.75
Vss (L/kg)	1.50 ± 0.65	1.49 ± 0.95
T ½ a (min)	4.2 ± 1.8	4.4 ± 2.9
T ½ ß (min)	52.1 ± 10.1	44 ± 14.0
T ½ γ (hour)	18.3 ± 7.8	21.9 ± 10.5
*Data expressed as mean value ± SD		

DRUG-DRUG INTERACTIONS

Formal *in vivo* and *in vitro* drug-drug interaction studies have not been conducted.

PHARMACODYNAMICS

In animal models and *in vitro* human cell lines, depreotide peptide without the Technetium Tc 99m was shown to bind to somatostatin receptors (SSTR) that predominantly are subtype 2, 3 and 5. SSTR 3 is a vasoactive intestinal peptide (VIP) receptor site. The possibility of VIP stimulating activity has not been studied.

Results of glucose tolerance tests in 9 healthy volunteers were normal after administration of depreotide peptide without the Technetium Tc 99m.

CLINICAL STUDIES

A total of 270 patients with known cancer or a high suspicion of cancer of the lung was studied in two multi-center, open administration, blind image interpretation clinical studies of Technetium Tc 99m Depreotide Injection. Of these patients, there were 168 (62%) men and 102 (38%) women with a mean age of 65 years (range: 29 to 86 years). Patients with known active pulmonary infections were excluded.

Eligible patients had either a known diagnosis of or were highly suspect for cancer, had a lung lesion on computed tomography (CT) scan or chest x-ray, and were scheduled for biopsy of the lesion. All patients had scintigraphic imaging with NeoTect® at a dose of 444 to 1221 MBq (12 to 33 mCi); and 18-47µg of peptide. The NeoTect® images were scored as positive for

malignancy if there was any uptake in the right or left lung, mediastinum or hilar region that was not characteristic of general radiopharmaceutical regional uptake. The NeoTect® images were scored negative if abnormal localization was not found. The criteria for the interpretation of malignancy by CT were similarly based upon abnormal visualization.

The NeoTect® and CT scans were interpreted blindly by three nuclear medicine physicians and three radiologists, respectively. The majority score for the presence or absence of malignancy was used in the statistical analysis. The location and score of NeoTect® and CT scan results were compared with the biopsy results of the presenting lesion identified at study enrollment. The results were analyzed for sensitivity, specificity, and accuracy (percentage of correct diagnoses). These results are presented in table 7.

Table 7: NeoTect® Blinded SPECT Imaging Results [(a)] for the Main Presenting Lesion Comparison to Histopathology

	Sensitivity	Specificity	Accuracy
Study A (n=112)[(b)]	70% [60, 80]	86% [73, 99]	74% [66, 81]
Study B (n = 114)[(b)]	71% [62, 80]	79% [58, 100]	72% [64, 79]

(a) As percentage [confidence intervals]

(b) Total of 226 patients were evaluated. Sixteen patients in Study A and 28 patients in study B were not evaluated primarily because of missing biopsies.

The prevalence of malignancy in the evaluated 226 patients was high (75% in study A; 88% in study B). In these 226 patients, the lesions that were biopsy positive for malignancy had histopathology results consistent with squamous cell (34%), adenocarcinoma (32%), other non-small cell (21%), small cell (6%), and other malignant cell types (7%).

The interpretation of NeoTect® images was negative in 29% (54/184) of patients when the biopsy reports were positive for adenocarcinoma, squamous cell, carcinoid or non-small cell cancer (i.e., false-negative NeoTect® scans). In these patients the lesion size ranged from 1-7 cm on CT. Also, the interpretation of NeoTect® was positive in 17% (7/42) of patients when the biopsy results were consistent with acute or chronic inflammation, infectious processes including abscess and pneumonia, hamartoma, fibrosis, or caseating or non-caseating granulomas (i.e., false-positive NeoTect® scans).

In these two studies of patients who were suspect for malignancy, two different retrospective analyses were performed to explore the potential diagnostic use of combined NeoTect® and CT blinded-image interpretations. One retrospective analysis of a subset of 127 patients with a solitary pulmonary nodule implies the combined interpretation improved specificity. In the other retrospective analysis of all 226 patients who had a CT scan, the finding of a positive CT and a positive NeoTect® image suggests an improved positive predictive value. The clinical relevance of other combinations of image results (e.g., CT and NeoTect® both negative, CT negative and

NeoTect® scan positive; or CT positive and NeoTect® negative) has not been determined. In all patients or in those with a solitary pulmonary nodule, the clinical benefit of combined interpretations has not been studied prospectively.

The clinical benefit of NeoTect® in other populations of patients (e.g., those who do not have a mass on CT and chest x-ray, and a high clinical suspicion for cancer) has not been studied. The clinical benefit of NeoTect® as a population-based screening tool has not been studied. NeoTect® is not an alternative to CT or biopsy.

INDICATIONS AND USAGE

NeoTect® is a scintigraphic imaging agent that identifies somatostatin receptor-bearing pulmonary masses in patients presenting with pulmonary lesions on computed tomography and/or chest x-ray who have known malignancy or who are highly suspect for malignancy.

CONTRAINDICATIONS

None known.

WARNINGS

None.

PRECAUTIONS

General

Therapy with somatostatin analogues can produce severe hypoglycemia in patients with insulinomas. Since Depreotide binds to somatostatin receptors caution should be exercised when administering this drug to patients with insulinomas.

NeoTect®, as other small peptides, may induce hypersensitivity reactions or anaphylactic reactions. Adequate treatment provisions, including epinephrine, should be available for immediate use. In preliminary studies of 18 subjects, NeoTect® did not produce increases in IgG or IgM production 3 weeks following injection. Other immune parameters such as eosinophils, other immunoglobulins, complement, lymphokines or cytokines were not studied.

NeoTect® contains sodium iodide and should be used with caution in patients who have a history of allergy to iodides.

Technetium Tc 99m Depreotide Injection, like other radioactive drugs, must be handled with care and appropriate safety measure should be used to minimize radiation exposure to clinical personnel. Care should also be taken to minimize radiation exposure to the patient consistent with proper patient management.

Radiopharmaceuticals should be used by or under the control of physicians who are qualified by specific training and experience in the safe use and handling of radionuclides, and whose

experience and training have been approved by the appropriate governmental agency authorized to license the use of radionuclides.

Urinary excretion of radioactivity occurs primarily during the first 4 hours following injection. Studies have not been done to determine the amount of radioactivity that might be eliminated in the feces. (See **CLINICAL PHARMACOLOGY** Section). Special precautions should be taken with incontinent patients to minimize the risk of radioactive contamination of clothing, bed linen, and the patient's environment.

Information For Patients

To minimize radiation absorbed dose to the bladder, adequate hydration should be encouraged to permit frequent voiding during the first few hours after injection of NeoTect®. This may be achieved by having patients drink at least an 8 oz. glass of water prior to drug administration. To help protect themselves and others in their environment, patients should take the following precautions for 12 hours after injection: whenever possible a toilet should be used and should be flushed several times after each use and patients should wash their hands thoroughly after each voiding or fecal elimination. If blood, urine or feces soil the clothing, the clothing should be washed separately.

Laboratory Tests

There was a low incidence (1% or less) of transient and clinically insignificant changes in alanine aminotransferase (ALT), white blood cell count and eosinophil count following administration of Technetium Tc 99m Depreotide Injection.

Drug Interaction

Drug interactions were not noted in clinical studies in which Technetium Tc 99m Depreotide Injection was administered to patients receiving concomitant medication.

Carcinogenesis, Mutagenesis, Impairment of Fertility

Studies have not been conducted to evaluate carcinogenic potential or effects on fertility.

The results of the following genotoxicity studies with decayed Technetium Tc 99m Depreotide Injection or with depreotide were negative: *Salmonella/Escherichia coli* reverse mutation assay, *in vitro* mouse lymphoma assay with and without metabolic activation, and *in vivo* mouse micronucleus assay.

Pregnancy

Pregnancy Category C. Animal reproduction studies have not been conducted with decayed Technetium Tc 99m Depreotide Injection. It is not known whether Technetium Tc 99m Depreotide Injection can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity. Technetium Tc 99m Depreotide Injection should be given to a pregnant woman only if clearly needed. Studies in pregnant women have not been conducted.

Nursing Mothers

Studies have not been conducted with depreotide to determine its excretion in human milk.

Technetium Tc 99m Pertechnetate is excreted in human milk. It is not known whether Technetium Tc 99m Depreotide Injection is excreted in human milk. Caution should be exercised when Technetium Tc 99m Depreotide Injection is administered to a nursing woman. Wherever possible, infant formula should be substituted for breast milk until the technetium has been eliminated.

Pediatric Use

Safety and effectiveness of Depreotide in pediatric patients below the age of 16 years have not been established.

ADVERSE REACTIONS

Adverse events were evaluated in clinical studies of 647 adults who received 15.0 to 20.0 mCi Technetium Tc 99m labeled to approximately 47µg of depreotide. Of these adults, 58% were men and 42% women. The mean age was 59.0 years (18-86 years).

Deaths did not occur during the clinical study period. After Technetium Tc 99m Depreotide Injection, serious adverse events were not reported.

At least one adverse event occurred in 29/647 (4.5 %) patients after Technetium Tc 99m Depreotide Injection. Headache was the most commonly reported adverse event (1% of patients). Table 8 lists adverse events reported in 0.5% or more of patients who received Technetium Tc 99m Depreotide Injection.

TABLE 8. ADVERSE EVENTS REPORTED IN ≥ 0.5% OF PATIENTS FOLLOWING NeoTect® INJECTION IN CLINICAL TRIALS

Number of Patients Exposed	647
Number of Patients with At Least One Adverse Event	29 (4.5%)
Nervous System	13 (2%)
Headache	7 (1.0%)
Dizziness	5 (0.8%)
Gastrointestinal System	7 (1.0%)
Nausea	4 (0.6%)
Vascular (extracardiac) Disorder	3 (0.5%)
Flushing	3 (0.5%)

Other adverse events which occurred in < 0.5% of patients following administration of NeoTect® included: arthrosis, back pain, chest pain, diarrhea, fatigue, gait abnormality, glossitis, hemoptysis, hypoaesthesia, infection, leg cramps, lymphocytosis, malaise, pharyngitis, somnolence, taste perversion.

DOSAGE AND ADMINISTRATION

For imaging, NeoTect® is administered as a peripheral intravenous injection at a single dose of 15 to 20 mCi containing approximately 47µg of Technetium Tc 99m radiolabeled Depreotide peptide.

Patients should drink at least an 8 oz. glass of water before drug administration.

The contents of Kit for the Preparation of Technetium Tc 99m Depreotide Injection are intended only for use in the preparation of Technetium Tc 99m Depreotide Injection and are not to be administered directly to the patient. Only one patient dose should be drawn from each reconstituted vial. (See Instructions for the Preparation Section).

The potential need for dose adjustment has not been studied in patients with renal insufficiency, or in pediatric or geriatric patients, or in patients on therapeutic somatostatin analogues.

IMAGING

Planar and SPECT images of the chest should be obtained between 2-4 hours after NeoTect® administration. SPECT images of the chest are required for optimal image interpretation.

RADIATION DOSIMETRY

Based on human data, the absorbed radiation dose to an average human adult (70 kg) from an intravenous injection of the agent are listed in Table 9. The values are listed in descending order as rad/mCi and mGy/MBq and assume urinary bladder emptying at 4.8 hours.

Table 9. Estimated Absorbed Radiation Dose		
Target Organ	rad/mCi	mGy/MBq
Kidneys	0.33	0.090
Spleen	0.16	0.042
Testes	0.11	0.031
Thyroid Gland	0.088	0.024
Red Marrow	0.078	0.021
Liver	0.078	0.021
Heart wall	0.054	0.014
Bone surface	0.054	0.015
Lungs	0.053	0.014
Adrenal glands	0.044	0.012
Pancreas	0.037	0.010
Urinary bladder	0.033	0.0089
Uterus	0.031	0.0084
Small Intestine	0.019	0.0050
Upper Large Intestine	0.019	0.0050
Ovaries	0.016	0.0042
Lower Large Intestine	0.014	0.0038

Dose calculations were performed using the standard MIRD method (MIRD Pamphlet No. 1 rev., Soc. Nucl. Med., 1976). Effective dose equivalent was calculated in accordance with ICRP 53 (Ann. ICRP 18, 1-4, 1988) and gave a value of 0.023 mSv/MBq (0.084 rem/mCi).

INSTRUCTIONS FOR THE PREPARATION OF TECHNETIUM Tc 99m DEPREOTIDE INJECTION

Use aseptic technique throughout. The user should wear waterproof gloves and use shielding at all times when handling the reconstituted vial or syringes containing the radioactive agent.

The patient doses should be measured using a suitably calibrated radioactivity dose meter immediately prior to administration to the patient.

1. Prepare a lead shielded rolling-boil water bath or equivalent heating block.

2. Allow the kit vial to warm to room temperature (20 to 25°C) and place it in a suitable shielding container and sanitize the rubber septum with a sanitizing alcohol swab.

3. Using a shielded syringe, inject the required activity of up to 50 mCi (1.8 GBq) of Sodium Pertechnetate Tc 99m Injection (diluted as appropriate with 0.9% Sodium Chloride Injection, U.S.P., to a total volume of one milliliter) into the shielded vial. (See **Cautionary Notes** 1 and 2). Before removing the syringe from the vial, withdraw a volume of gas from above the solution equal to the volume of pertechnetate added in order to normalize the pressure inside the vial. Mix for 10 seconds in order to ensure complete dissolution of the powder.

4. Immediately transfer the reaction vial to the lead shielded boiling water bath or heating block, maintaining the vial in the upright condition. Incubate for 10 minutes in this condition. Allow the vial to cool to body temperature (about 10 ± 2 minutes). Insert a sterile venting needle with 0.22 µm filter into the vial and draw 1 mL of filtered air into the headspace by removing 1 mL of air with a sterile needle and syringe. .

5. Assay the total radioactivity, complete the user radiation label, and attach it to the vial.

6. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration, whenever solution and container permit: visually inspect the reconstituted solution at a safe distance through leaded glass. Do not use if the solution is not clear or if it contains foreign particulate matter.

7. Store the reconstituted injection at room temperature (20 - 25°C) and use within six hours of preparation.

Cautionary Notes

1. Add 15 to 50 mCi of Sodium Pertechnetate Tc 99m Injection in a total volume of 1 mL to obtain a single patient dose of 15 to 20 mCi from the entire reconstituted vial.

2. Safety and effectiveness of Technetium Tc 99m Depreotide Injection were established using investigational material shown to have a radiochemical purity of at least 90% prior to administration to patients in clinical studies.

3. **The contents of the Kit for the Preparation of Technetium Tc 99m Depreotide Injection vial are not radioactive; however, after the addition of Sodium Pertechnetate Tc 99m Injection, adequate shielding of the final preparation must be maintained.**

4. **The labeling reaction involved in the preparation of Technetium Tc 99m Depreotide Injection depends upon maintaining tin in the divalent (reduced) state. Any oxidant present in the Sodium Pertechnetate Tc 99m Injection might adversely affect the quality of the preparation. Sodium Pertechnetate Tc 99m Injection containing oxidants ought not to be used for the preparation of the labeled product.**

5. 0.9% Sodium Chloride Injection, U.S.P., must be used as the diluent. Do not use bacteriostatic sodium chloride as a diluent for pertechnetate because it might adversely affect the radiochemical purity and, hence, the biological distribution of the tracer.

6. The contents of Kit for the Preparation of Technetium Tc 99m Depreotide Injection are sterile and non-pyrogenic.

7. **Do not inject NeoTect® into Total Parenteral Nutrition (TPN) admixtures or inject into TPN intravenous administration lines. In these solutions, NeoTect® may form a complex glycosyldepreotide conjugate.**

QUALITY CONTROL

An assay of the radiochemical purity of the prepared injection can be performed using the following chromatographic procedures.

Equipment and Materials

1. Two Gelman ITLC-SG strips (2 cm × 10 cm)

2. Two glass developing jars and covers

3. Saturated sodium chloride solution (SAS) See #7a

4. 1:1 (v/v) Methanol: 1M Ammonium Acetate (MAM) See #7b

5. One 1-mL syringe and 21-gauge (or smaller gauge) needle

6. Suitable counting equipment

7. Preparation of reagents

a. Saturated sodium chloride solution (SAS):

SAS may be prepared by adding about five grams of sodium chloride to the bottom of one chromatography chamber; add approximately 10 milliliters of distilled water to the solid sodium chloride and shake periodically during 10 to 15 minutes. Solid sodium chloride should remain at the bottom of the jar; if there is no residue, add more solid sodium chloride and shake again for 10 to 15 minutes. Continue until a solid residue remains. (The Saturated Sodium Chloride Solution can be reused. Add more distilled water or sodium chloride as needed for subsequent use, always maintaining some undissolved sodium chloride at the bottom of the chamber.)

b. 1:1 Methanol: 1M Ammonium Acetate (MAM):

1M Ammonium Acetate: Add 3.9 ± 0.1 grams of solid ammonium acetate to a 50 mL volumetric flask. Add approximately 15 mL of distilled water to the flask, stopper, and swirl to dissolve the solid. Add distilled water up to the 50 mL mark, mix thoroughly. The ammonium acetate solution can be used for up to one month. Label the solution with a one month expiration date.

1:1 Methanol: 1M Ammonium Acetate (MAM): Carefully mix one part methanol with one part 1M Ammonium Acetate. The MAM should be prepared fresh daily.

Method

1. Pour the MAM and SAS into separate glass developing jars to a depth of approximately 0.5 cm. Cover the jars and allow to equilibrate with the solvent vapors.

2. Mark two Gelman ITLC-SG strips with a light pencil at 1 cm from the bottoms of each.

3. Spot one drop (approximately 5 to 10 microliters) of Technetium Tc 99m Depreotide Injection at the origin of each strip using the hypodermic needle. Do not allow the spots to dry. CAUTION: Do not allow the needle to touch the strip.

4. Place the developing jars behind a lead shield.

5. Place one ITLC-SG strip in the MAM developing solvent. Place the second ITLC-SG strip in the SAS developing solvent. Place the strips upright in the respective developing solvent such that the spot is above the solvent line and the top of the strip leans against the side of the jar. CAUTION: Do not allow the sides of the strip to contact the side of the jar. Cap the developing jars.

6. Allow the solvent front to move to the top of the strip.

7. Remove the strip from the jar and allow the strip to dry behind a lead shield.

8. Cut the strips as described below:

   ITLC-SG MAM: cut the strip at Rf 0.4 (40% of the distance from the origin to the solvent front)

ITLC-SG SAS: cut the strip at Rf 0.75 (75% of the distance from the origin to the solvent front)

9. Count each strip section in a dose calibrator and interpret the results as follows (refer to figure below):

   Percent Technetium Tc 99m non-mobile material = A

   $$A = 100 \times \{\frac{\text{Activity in bottom piece of ITLC – SG MAM strip (Rf 0 to 0.40)}}{\text{Total Activity in both pieces of ITLC-SG MAM strip}}\}$$

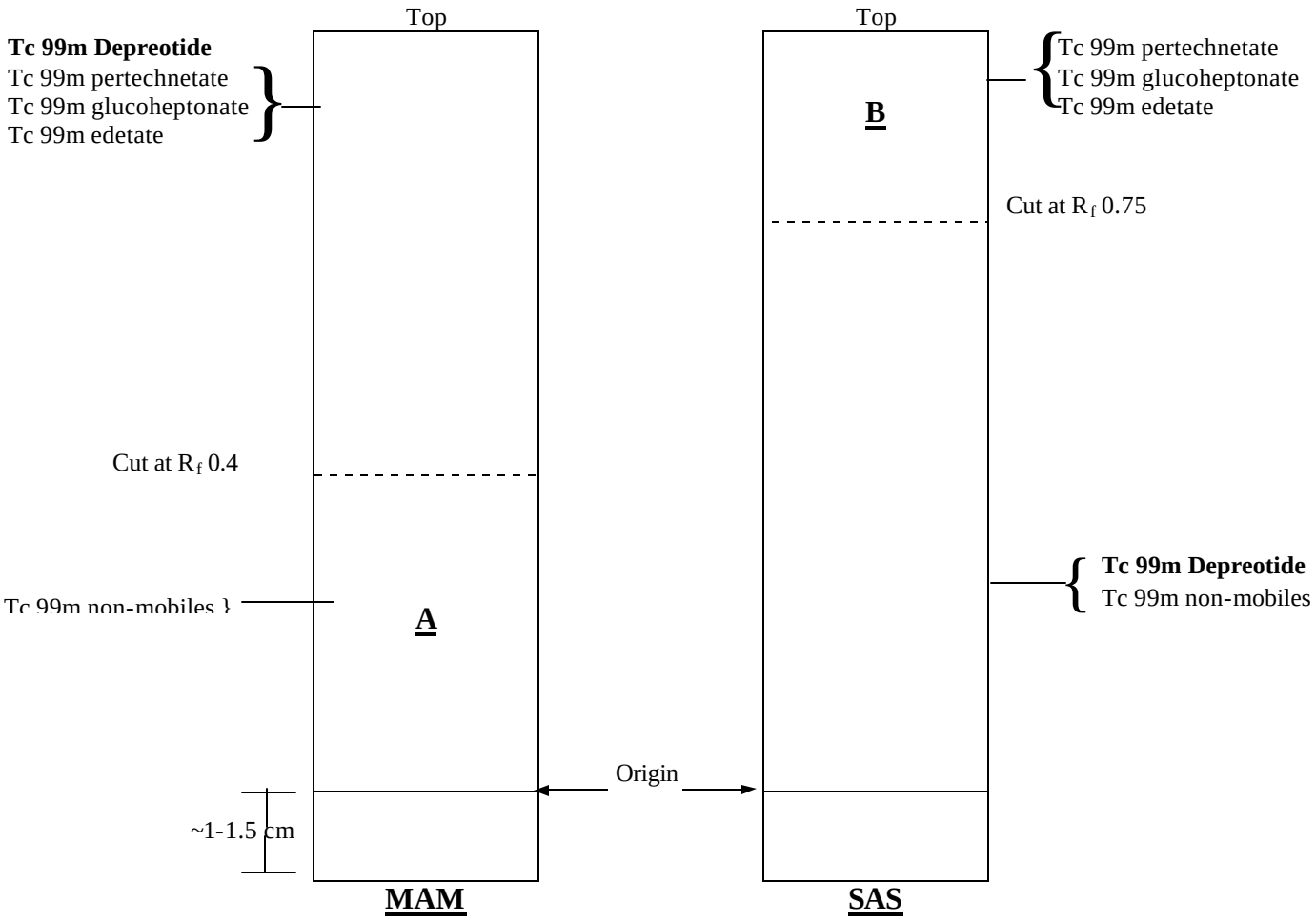
   Percent Technetium Tc 99m pertechnetate, Technetium Tc 99m glucoheptonate and Technetium Tc 99m edetate = B

   $$B = 100 \times \{\frac{\text{Activity in top piece of ITLC – SG SAS strip (Rf 0.75 to 1)}}{\text{Total Activity in both pieces of ITLC-SG SAS strip}}\}$$

   Percent Technetium Tc 99m Depreotide Injection: 100 - (A + B)

A value of at least 90% should be obtained in a satisfactory preparation.

10. If the radiochemical purity of the Technetium Tc 99m Depreotide Injection is not ≥90% do not administer to patients.



HOW SUPPLIED

Each kit is comprised of one vial containing a sterile, non-pyrogenic, freeze-dried mixture of Depreotide, stannous chloride dihydrate, sodium glucoheptonate dihydrate, sodium iodide and edetate disodium dihydrate. Kits are available as individual vials or as packs of five.

NDC 45567-0515-3– single vial

NDC 45567-0515-1– five vial pack

STORAGE

Store the kit at 2 – 8°C (36 – 46°F). Store the reconstituted injection solution at 20 - 25° C (68 - 77° F) using appropriate radiation shielding. Use within 6 hours of reconstitution.

The kit should be protected from light.

This reagent kit is approved for distribution to persons licensed by the U.S. Nuclear Regulatory Commission to use byproduct material identified in §35.200, or under an equivalent license of an Agreement State.

Manufactured by:
Rentschler Biotechnologie GmbH
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