

Title (en)
METHOD FOR PREPARING A METAL-RADIONUCLIDE-LABELLED PROTEIN.

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES MIT METALLRADIONUKLID MARKIERTEN PROTEINS.

Title (fr)
PROCEDE DE PREPARATION D'UNE PROTEINE MARQUEE PAR UN RADIONUCLIDE DE METAL.

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Application
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Abstract (en)
[origin: WO9107991A1] Disclosed is a method of preparing a metal-radionuclide-labelled protein or proteinaceous material, which is intended for diagnostic or therapeutic application, by reacting a protein or proteinaceous material with a bifunctional agent for coupling the radionuclide to the protein or a proteinaceous material, a conjugate being formed by reaction between bifunctional agent and free amino or mercapto groups in the protein or proteinaceous material, and by then complexing radionuclide with the conjugate. The bifunctional agent used consists of a thio compound of the general formula: Y - R - S - X, wherein X is an optionally halogenated alkanoyl group having 2-5 carbon atoms, or an optionally substituted benzoyl group; R is an optionally substituted hydrocarbon radical having 1-10 carbon atoms; and Y is at least one terminal group capable of reacting with a free amino group or mercapto group in the protein or proteinaceous material. Further disclosed is the labelled protein or proteinaceous material thus obtained, and a kit for preparing a radiopharmaceutical composition.

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• [A] EP 0247866 A1 19871202 - MALLINCKRODT INC [US]
• [YD] CHEMICAL AND PHARMACEUTICAL BULLETIN. vol. 33, no. 1, 1985, TOKYO JP pages 362 - 367; N FUJII ET AL.: 'studies on peptides. CXXV. 3-(3 -p-methoxybenzylthiopropionyl)thiazolidine-2-thi one and its analogs as reagents for the introduction of the mercapto group into peptides and proteins'
• [YD] ANALYTICAL BIOCHEMISTRY vol. 132, no. 1, 1 July 1983, NEW YORK US pages 68 - 73; R J S DUNCAN ET AL.: 'a new reagent which may be used to introduce sulphhydryl groups into proteins, and its use in the preparation of conjugates for immunoassay'
• [A] JOURNAL OF NUCLEAR MEDICINE. vol. 24, no. 5, May 1983, NEW YORK US page 126; E F BYRNE ET AL.: 'technetium-99m bifunctional chelating agents-thiolactone for coupling to biomolecules, N2S2 ligand for chelation to technetium'
• [A] JOURNAL OF NUCLEAR MEDICINE. vol. 25, no. 2, February 1984, NEW YORK US pages 223 - 229; R F SCHNEIDER ET AL.: 'N, N- bis (s-benzoylmercaptoacetamido) ethylenediamine and propylenediamine ligands as renal function imaging agents'
• See references of WO 9107991A1

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