

ABSTRACT

A method for producing a radioactive metal complex includes a step of allowing a radioactive metal to react with DOTA or a derivative thereof as a ligand in a reaction liquid to form a radioactive metal complex. The reaction liquid contains water, a buffer, and a water-soluble organic solvent. The radioactive metal is ^{89}Zr or ^{225}Ac . The ligand may have, in the structure thereof, a group to which a peptide is linked. The content of the water-soluble organic solvent in the reaction liquid is preferably 2% by volume or more and 50% by volume or less. The radioactive metal is preferably allowed to react with the ligand in the reaction liquid at 30°C or higher and 80°C or lower.