

ABSTRACT

The present invention relates to a method for producing a radioactive zirconium-labeled complex that can realize a high labeling index in a reaction between a radioactive zirconium ion and a ligand compound. The production method of the present invention includes a step of reacting a radioactive zirconium ion with a ligand compound in a reaction solution containing water to coordinate the radioactive zirconium ion. This step is performed in a state where the pH of the reaction solution is in an acidic region. The reaction solution does not contain an organic solvent but contains a water-soluble organic compound having one or two sulfo groups or carboxy groups in its structure, separately from the ligand compound.