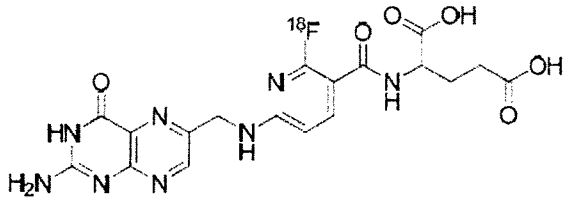
Claims

1. A compound of formula IVg,



IVg

or a pharmaceutically acceptable salt thereof.

2. Folate radiopharmaceuticals containing the compound according to claim 1, for the diagnostic imaging of a cell or population of cells expressing a folate-receptor in vitro or in vivo.

3. The folate radiopharmaceuticals containing the compound according to claim 1, for convenient and effective administration for diagnostic imaging.

4. The folate radiopharmaceuticals containing the compound according to claim 1, for administering said compound in a diagnostic imaging amount, and obtaining a diagnostic image of said cell or population of cells, diagnostic imaging of a cell or population of cells expressing a folate-receptor.

5. The folate radiopharmaceuticals according to claim 4, for the diagnostic imaging of a cell or population of cells expressing a folate-receptor in vitro or in vivo.

6. Method for in vitro detection of a cell expressing the folate receptor in a tissue sample which includes contacting said tissue sample with a compound according to claim 1 in effective amounts and for sufficient time and conditions to allow binding to occur and detecting such binding by techniques such as autoradiography and the like.

7. The folate radiopharmaceuticals containing the compound according to claim 1, for (i) administering said compound in a diagnostic imaging amount, and (ii) performing diagnostic imaging using PET by detecting a signal from said compound, in diagnostic imaging or monitoring.

8. The folate radiopharmaceuticals containing the compound according to claim 1, for (i) administering said compound in a diagnostic imaging amount in combination with a therapeutically active drug and (ii) performing diagnostic imaging using PET by detecting a signal from said compound to follow the course of cancer or inflammatory and autoimmune disease therapy, in monitoring cancer or inflammatory and autoimmune disease therapy.

9. The folate radiopharmaceuticals according to claim 7 or 8, wherein said radiopharmaceuticals are used in combination with any other methods of diagnosis or therapy of cancer or inflammatory and autoimmune disease.