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Iodine I-124 FIAU

National Cancer Institute

Source

National Cancer Institute. *Iodine I-124 FIAU*. NCI Thesaurus. Code C88284.

A radioconjugate containing the nucleoside analog 2'-fluoro-2'-deoxy-1beta-D-arabinofuranosyl-5-iodouracil (FIAU) labeled with the radioisotope iodine I 124 with positron-emitting activity. Chemotherapeutic agents such as bortezomib may induce viral thymidine kinase expression in EBV- and Kaposi's sarcoma herpesvirus (KSHV)-associated tumors. Subsequent to chemotherapy induction of viral TK in these tumors, administered iodine I 124 FIAU is phosphorylated by expressed viral TK, becoming selectively trapped within TK-expressing tumor cells; these cells can then be visualized with positron emission tomography (PET). Viral TK is either not expressed or is expressed at very low levels in EBV- and Kaposi's sarcoma herpesvirus (KSHV)-associated tumors and may be activated by certain chemotherapeutic agents.