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Fluorine F 18-labeled S-(3-Fluoropropyl)homocysteine Hydrochloride

National Cancer Institute

Source

National Cancer Institute. *Fluorine F 18-labeled S-(3-Fluoropropyl)homocysteine Hydrochloride*. NCI Thesaurus. Code C104269.

The hydrochloride salt form of a radioconjugate composed of a synthetic derivative of the amino acid methionine radiolabeled with fluoride F 18, with potential use as a tumor imaging agent during positron emission tomography (PET). Upon administration, fluorine F 18-labeled S-(3-fluoropropyl) homocysteine is preferentially taken up by tumor cells through an amino acid transporter, which is overexpressed by cancer cells. As tumor cells have a higher rate of proliferation than normal cells, these cancer cells have increased rates of protein synthesis and thus an increased demand for amino acids. This allows for visualization of tumors cells upon PET.