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Iodine I 124-labeled Hsp90 Inhibitor PUH71

National Cancer Institute

Source

National Cancer Institute. *Iodine I 124-labeled Hsp90 Inhibitor PUH71*. NCI Thesaurus. Code C95711.

A radioconjugate containing the purine scaffold heat shock protein 90 (Hsp90) inhibitor PUH71 labeled with the radioisotope iodine I 124, with positron emitting activity. Hsp90 inhibitor PUH71 is thought to bind to cytosolic Hsp90 and the endoplasmic reticulum paralogue gp96 (HSP90B1), thereby inhibiting its molecular chaperone function and promoting the degradation of the oncogenic signaling proteins. This induces caspase-dependent apoptosis. The iodine I 124 moiety can be visualized using Positron emission tomography (PET) imaging, thereby allowing an assessment of the accumulation of PUH71 in vivo, particularly in tumors. Hsp90, a chaperone protein upregulated in a variety of tumor cells, regulates the folding, stability and degradation of many oncogenic signaling proteins.