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Gallium Ga 68-labeled PSMA-11

National Cancer Institute

Source

National Cancer Institute. *Gallium Ga 68-labeled PSMA-11*. NCI Thesaurus. Code C118961.

A radioconjugate composed of a human prostate specific membrane antigen (PSMA)-targeting ligand, Glu-urea-Lys(Ahx) (Glu-NH-CO-NH-Lys(Ahx)), conjugated, via the acyclic radiometal chelator N,N'-bis [2-hydroxy-5-(carboxyethyl)benzyl] ethylenediamine-N,N'-diacetic acid (HBED-CC), to the radioisotope gallium Ga 68, with potential use as a tracer for PSMA-expressing tumors during positron emission tomography (PET). Upon intravenous administration of the gallium Ga 68-labeled PSMA-11, the Glu-urea-Lys(Ahx) moiety targets and binds to PSMA-expressing tumor cells. Upon internalization, PSMA-expressing tumor cells can be detected during PET imaging. PSMA, a tumor-associated antigen and type II transmembrane protein, is expressed on the membrane of prostatic epithelial cells and overexpressed on prostate tumor cells.