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Copper Cu 64-DOTA-Rituximab

National Cancer Institute

Source

National Cancer Institute. *Copper Cu 64-DOTA-Rituximab*. NCI Thesaurus. Code C99900.

A radioimmunoconjugate containing rituximab, a recombinant chimeric murine/human antibody directed against the human CD20 antigen, conjugated with the bifunctional, macrocyclic chelating agent tetra-azacyclododecanetetra-acetic acid (DOTA) and labeled with the radioisotope copper Cu 64 with potential diagnostic properties upon positron emission tomography (PET) imaging. The monoclonal antibody moiety of copper Cu 64-DOTA-Rituximab specifically binds to cell surface antigen CD20. Upon binding, the radioisotope moiety may be detected using PET, thereby allowing the imaging and quantification of CD20-expressing tumor cells. CD20 is a non-glycosylated phosphoprotein that is exclusively expressed on B cells during most stages of B cell development and is often overexpressed in B-cell malignancies.