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Copper 64 Cu-DOTA-daratumumab

National Cancer Institute

Source

National Cancer Institute. *Copper 64 Cu-DOTA-daratumumab*. NCI Thesaurus. Code C140353.

A radioimmunoconjugate containing daratumumab, a human immunoglobulin G1 kappa (IgG1k) monoclonal antibody directed against the cell surface glycoprotein CD38, 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-daratumumab specifically targets and binds to cell surface antigen CD38. Upon binding, the radioisotope moiety may be detected using PET, thereby allowing the imaging and quantification of CD38-expressing tumor cells. CD38, a cell surface glycoprotein, is expressed on various hematopoietic cells and is overexpressed on multiple myeloma (MM) cells.