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Lead Pb 212 TCMC-trastuzumab

National Cancer Institute

Source

National Cancer Institute. *Lead Pb 212 TCMC-trastuzumab*. NCI Thesaurus. Code C97500.

A radioimmunoconjugate containing the recombinant humanized monoclonal antibody trastuzumab conjugated with the bifunctional chelating agent TCMC ((1,4,7,10-Tetra-(2-Carbamoyl Methyl)-Cyclododecane), and radiolabeled with the alpha-emitting isotope lead Pb 212, with potential anti-tumor activity. Upon administration, the antibody moiety of lead Pb 212 TCMC-trastuzumab binds with high affinity to the extracellular domain of human epidermal growth factor receptor 2 (HER2); after internalization, the radioisotope moiety delivers a cytotoxic dose of alpha radiation to the HER2-expressing tumor cells. HER2, a tyrosine kinase receptor, is overexpressed on the cell surface of a variety of cancer cell types.