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# Gallium Ga 68-NODAGA-ZIGF-1R:4:40

National Cancer Institute

## Source

National Cancer Institute. *Gallium Ga 68-NODAGA-ZIGF-1R:4:40*. NCI Thesaurus. Code C132030.

A radiolabeled recombinant insulin-like growth factor 1 receptor (IGF-1R; IGF1R)-specific affibody ligand composed of an IGF1R-targeting protein, the anti-IGF1R affibody ZIGF-1R:4:40 with an acetylated cysteine (Ac-Cys) at the N terminal of the affibody, that is site-specifically conjugated with the chelating agent NODAGA (1,4,7-triazacyclononane,1-glutaric acid-4,7-acetic acid), and labeled with the radioisotope gallium Ga 68, with potential use for imaging IGF1R-expressing tumor cells upon positron emission tomography (PET). Upon administration of gallium Ga 68-NODAGA-ZIGF-1R:4:40, the ZIGF-1R:4:40 affibody molecule moiety targets and binds to IGF1R expressed on various tumor cell types. Upon PET, IGF1R-expressing tumor cells can be visualized. IGF1R, frequently overexpressed in cancers, plays important roles in cell proliferation, survival, adhesion, migration, and differentiation. The affibody protein scaffold is based on the Z-domain, which is derived from one of the immunoglobulin (Ig) G-binding domains of staphylococcal protein A.