Anti-HER2 Monoclonal Antibody/Anti-CD137Anticalin Bispecific Fusion Protein PRS-343

National Cancer Institute

Source

National Cancer Institute. Anti-HER2 Monoclonal Antibody/Anti-CD137Anticalin Bispecific Fusion Protein PRS-343. NCI Thesaurus. Code C142890.

A bivalent, bispecific fusion protein comprised of an anti-human epidermal growth factor receptor (HER2) monoclonal antibody linked to a CD137-targeting anticalin with potential immunostimulatory and antineoplastic activities. Upon administration of anti-HER2 monoclonal antibody/anti-CD137 anticalin bispecific fusion protein PRS-343, CD137 clustering is promoted by bridging CD137-positive T-cells with HER2-positive tumor cells, leading to the recruitment of tumor antigen-specific cytotoxic T-lymphocytes (CTLs). This may result in potent CTL-mediated lysis of HER2-expressing tumor cells. HER2 plays a key role in tumor cell proliferation and tumor vascularization. CD137 is a costimulatory immunoreceptor and a member of the tumor necrosis factor receptor superfamily (TNFRSF). Anticalins are synthetic antigen-binding proteins derived from lipocalins. Structurally dissimilar to antibodies, anticalins are able to bind to smaller antigens and exhibit improved tissue penetration.