

Open Peer Review on Qeios

DR5 HexaBody Agonist GEN1029

National Cancer Institute

Source

National Cancer Institute. <u>DR5 HexaBody Agonist GEN1029</u>. NCI Thesaurus. Code C153259.

An agonistic hexamer formation-enhanced mixture of two antibodies (HexaBody) that target two separate epitopes on death receptor type 5 (DR5; TNFRSF10B; tumor necrosis factor-related apoptosis-inducing ligand receptor 2; TRAILR2), with potential antineoplastic activity. Upon administration, DR5 HexaBody agonist GEN1029 specifically binds to and activates DR5. This results in the activation of caspase cascades and the induction of apoptosis in DR5-expressing tumor cells. DR5, a cell surface receptor and member of the tumor necrosis factor receptor superfamily (TNFRSF), is involved in the promotion of caspase-dependent apoptosis. Compared to other DR5 antibody-based agonists, the antibodies in GEN1029 (DR5-01 and DR5-05) elicit increased receptor activation because they exhibit enhanced formation of antibody hexamers and receptor clusters at the cell surface due to E430G mutations in the Fc domains of both antibodies.

Qeios ID: XYI79P · https://doi.org/10.32388/XYI79P