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CD16/IL15/CD33 Trispecific Killer Cell Engager

National Cancer Institute

Source

National Cancer Institute. *CD16/IL15/CD33 Trispecific Killer Cell Engager*. NCI Thesaurus. Code C151948.

A trispecific killer engager (TriKE) molecule containing an anti-cluster of differentiation 16 (CD16; FcγRIII) single-chain variable fragment (scFv) to engage natural killer (NK) cells, an anti-CD33 scFv to engage myeloid cells and a human modified interleukin-15 (IL-15) linker, that links the two scFv, with potential immunomodulating and antineoplastic activities against CD33-expressing tumor cells. Upon administration of the CD16/IL15/CD33 TriKE, the simultaneous binding to CD16 on NK cells and CD33 on tumor cells will induce NK cell cytotoxicity specifically against CD33-expressing tumor cells. The cytokine IL-15 linker promotes NK cell proliferation, activity, survival and expansion. CD33 is expressed on normal non-pluripotent hematopoietic stem cells and is overexpressed on myeloid leukemia cells.