

Open Peer Review on Qeios

Flotetuzumab

National Cancer Institute

Source

National Cancer Institute. Flotetuzumab. NCI Thesaurus. Code C117238.

An anti-CD123/anti-CD3 bispecific humanized monoclonal antibody with potential immunostimulatory and antineoplastic activities. Flotetuzumab possesses two antigen-recognition and binding sites, one for the CD3 complex, a group of T-cell surface glycoproteins that complex with the T-cell receptor (TCR), and one for CD123, a tumor-associated antigen (TAA) overexpressed on the surface of certain tumor cells. Upon administration of flotetuzumab, this bispecific antibody simultaneously binds to both CD3-expressing T-cells and CD123-expressing cancer cells, thereby crosslinking CD123-expressing tumor cells and cytotoxic T-lymphocytes (CTLs). This may result in potent CTL-mediated cell lysis of CD123-expressing tumor cells. CD123, the interleukin-3 receptor alpha chain, is overexpressed in a variety of hematological malignancies; its expression is low or absent in normal hematopoietic progenitors and stem cells.

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