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Milatumzumab

National Cancer Institute

Source

National Cancer Institute. *Milatumzumab*. NCI Thesaurus. Code C66983.

A humanized monoclonal antibody directed against human CD74 with potential antineoplastic activity. Milatumzumab specifically binds to CD74 on CD74-positive cells. Although the exact mechanism through which this agent induces apoptosis is unknown, it may involve antibody-dependent cellular cytotoxicity (ADCC) or complement-mediated cytotoxicity (CMC). Alternatively, as CD74 is the cellular receptor for the cytokine migration-inhibitory factor (MIF), the cytotoxicity of this agent may be related to inhibition of CD74 activation by MIF. CD74, an integral membrane protein that functions as an MHC class II chaperone, may also be an accessory-signaling molecule; activation of CD74 may initiate cell survival mechanisms involving induction of a signaling cascade resulting in NFkB activation, entry of stimulated cells into the S phase of the cell cycle, elevation of DNA synthesis, cell division, and augmented expression of Bcl-xL.