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Daratumumab/rHuPH20

National Cancer Institute

Source

National Cancer Institute. *Daratumumab/rHuPH20*. NCI Thesaurus. Code C156401.

A co-formulation composed of daratumumab, a human immunoglobulin (Ig) G1 kappa monoclonal antibody directed against the cell surface glycoprotein cluster of differentiation 38 (CD-38; CD38), and a recombinant form of human hyaluronidase (rHuPH20), with potential antineoplastic activity. Upon subcutaneous administration of daratumumab/rHuPH20, daratumumab targets and binds to CD38 on certain CD38-expressing tumors, such as multiple myeloma (MM) and plasma cell leukemia. This binding induces direct apoptosis through Fc-mediated cross-linking and triggers immune-mediated tumor cell lysis through antibody-dependent cellular cytotoxicity (ADCC), complement-dependent cytotoxicity (CDC), and antibody-dependent cellular phagocytosis (ADCP) immune responses. CD38, a transmembrane glycoprotein, is expressed in both hematopoietic and non-hematopoietic lineage cells. rHuPH20 hydrolyzes and degrades the glycosaminoglycan hyaluronic acid (HA), thereby decreasing interstitial viscosity and enhancing penetration of daratumumab through the interstitial space. This facilitates the delivery of daratumumab to CD38-expressing tumor cells.