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Citatumumab Bogatox

National Cancer Institute

Source

National Cancer Institute. *Citatumumab Bogatox*. NCI Thesaurus. Code C71694.

A fusion protein immunotoxin consisting of a humanized, single-chain monoclonal antibody Fab fragment specific for the epithelial cell adhesion molecule (EpCAM) conjugated with a modified bouganin cytotoxin with potential antineoplastic activity. Citatumumab bogatox binds to EpCAM, delivering modified bouganin cytotoxin directly to EpCam-positive tumor cells, which may result in the inhibition of tumor cell protein synthesis and tumor cell death. EpCAM, a cell surface protein, is expressed by a variety of tumor cells and is frequently found in head and neck cancers. Bouganin is a plant-derived ribosome-inactivating protein (RIP), a toxic plant N-glycosidase that depurinates the universally conserved alpha-sarcin loop of ribosomal rRNA, inactivating the ribosome and preventing protein synthesis. Compared to unmodified bouganins, modified bouganins may have a reduced propensity to activate human T cells.