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MAG-Tn3/AS15 Vaccine

National Cancer Institute

Source

National Cancer Institute. *MAG-Tn3/AS15 Vaccine*. NCI Thesaurus. Code C120555.

A vaccine containing synthetic multiple antigenic glycopeptide (MAG) composed of tri Tn glycotope (MAG-Tn3), which is comprised of a dendrimeric, nonimmunogenic lysine core linked to a tetravalent peptidic CD4+ T-cell epitope backbone and each attached to three Tn antigens (tri-Tn cluster), combined with the immunoadjuvant AS15, with potential antineoplastic activity. Upon administration of the MAG-Tn3/AS15 vaccine, MAG-Tn3 induces the production of tumor-specific anti-Tn glycosidic antibodies, which results in antibody-dependent cell cytotoxicity (ADCC) against Tn-expressing tumor cells. The Tn carbohydrate antigen, a tumor-associated antigen (TAA), is overexpressed in a number of tumor cell types. The tri-Tn clusters mimic carbohydrate structures found on tumor cells. The T-cell epitope stimulates effective T-cell responses. AS15, a potent adjuvant liposomal formulation that contains CpG 7909, monophosphoryl lipid (MPL), and QS-21, increases the immune response against the Tn antigens.