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# HER2-targeted Liposomal Doxorubicin Hydrochloride MM-302

National Cancer Institute

## Source

National Cancer Institute. *HER2-targeted Liposomal Doxorubicin Hydrochloride MM-302*. NCI Thesaurus. Code C96038.

An antibody-targeted lipidic nano-carrier containing the antineoplastic anthracycline antibiotic doxorubicin encapsulated within liposomes, and conjugated to a monoclonal antibody against the human epidermal growth factor receptor 2 (HER2), with potential antitumor activity. Upon administration of HER2-targeted liposomal doxorubicin hydrochloride MM-302, the immunoliposome allows for specific delivery of doxorubicin to tumors overexpressing the HER2 receptor. Once inside the HER2-expressing tumor cells, doxorubicin intercalates into DNA and interferes with topoisomerase II activity, thereby inhibiting DNA replication and RNA synthesis. Compared to doxorubicin alone or liposomal doxorubicin, targeted liposomal delivery of doxorubicin improves efficacy while lowering the toxicity profile. HER2, a tyrosine kinase receptor, is overexpressed in many cancer cell types.