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Lyso-Thermosensitive Liposome Doxorubicin

National Cancer Institute

Source

National Cancer Institute. *Lyso-Thermosensitive Liposome Doxorubicin*. NCI Thesaurus. Code C61571.

A temperature-sensitive liposomal formulation of the anthracycline antibiotic doxorubicin with potential antineoplastic activity. Upon intravenous administration, circulating thermosensitive liposomes are activated locally by increasing the tumor temperature to 40-41 degrees Celsius using an external heat source. The elevated temperature causes compositional changes in the liposomes, creating openings that allow for the release of encapsulated doxorubicin. Compared to non-thermosensitive liposomes, lyso-thermosensitive liposomes deliver higher concentrations of a cytotoxic agent to a heat-treated tumor site while sparing normal tissues unexposed to heat treatment.