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Hsp70-peptide TKD/IL-2-activated Autologous Natural Killer Cells

National Cancer Institute

Source

National Cancer Institute. Hsp70-peptide TKD/IL-2-activated Autologous Natural Killer Cells. NCI Thesaurus. Code C115969.

A preparation of autologous natural killer (NK) cells that are stimulated ex vivo by a 14-mer heat shock protein 70 (Hsp70) TKD peptide and interleukin-2 (IL-2), with potential tumor-selective cytolytic activity. Upon re-infusion into the patient, the treated NK cells recognize and bind to Hsp70-expressing tumor cells, which induces NK-mediated tumor cell lysis. Hsp70, a membrane-bound, stress-inducible protein, is overexpressed on almost all tumor cells; however, it is absent or minimally present on normal, healthy cells. TKD is the C-terminal substrate-binding domain of Hsp70 and is the structure recognized by the activated NK cells.