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Live-Attenuated Listeria Encoding Human Mesothelin Vaccine CRS-207

National Cancer Institute

Source

National Cancer Institute. *Live-Attenuated Listeria Encoding Human Mesothelin Vaccine CRS-207*. NCI Thesaurus. Code C74055.

A recombinant Listeria-based cancer vaccine containing a live-attenuated strain of the facultative intracellular bacterium *Listeria monocytogenes* (Lm) expressing human mesothelin with potential immunostimulatory and antineoplastic activities. Upon administration of this vaccine, Listeria invade professional phagocytes within the immune system and express mesothelin, which may activate a cytotoxic T-lymphocyte (CTL) response against mesothelin-expressing tumor cells, resulting in tumor cell lysis. In addition, the Listeria vector itself may induce a potent innate and adaptive immunity unrelated to mesothelin expression. Mesothelin is a cell surface glycoprotein involved in cell adhesion and is overexpressed in many epithelial-derived cancers, including pancreatic, ovarian and lung cancers, and malignant mesotheliomas.