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Listeria monocytogenes-LLO-PSA Vaccine ADXS31-142

National Cancer Institute

Source

National Cancer Institute. *Listeria monocytogenes-LLO-PSA Vaccine ADXS31-142*. NCI Thesaurus. Code C120103.

A cancer vaccine containing a live-attenuated strain of the Gram-positive bacterium *Listeria monocytogenes* (Lm) encoding a fusion protein composed of the tumor-associated antigen (TAA) human prostate-specific antigen (PSA) fused to a fragment of the immunostimulant listeriolysin O (LLO) protein, with potential immunostimulatory and antineoplastic activities. Upon administration of the Lm-LLO-PSA vaccine ADXS31-142, the expressed LLO-PSA is processed by antigen presenting cells (APCs), presented to the immune system by both major histocompatibility complex (MHC) I and II molecules, and activates the immune system to exert both an innate and adaptive immune response involving the recruitment and activation of T-lymphocytes against PSA-expressing tumor cells as well as the inhibition of tumor-infiltrating T regulatory cells (T regs) and myeloid-derived suppressor cells (MDSCs). This eventually results in tumor cell lysis.