

DPX-SURVIVAC: A PREMIUM THERAPEUTIC CANCER VACCINE



SURVIVIN AS A CANCER VACCINE TARGET

1. Cancer Specific Expression

Survivin is highly cancer specific. Its expression is undetected in most healthy tissues but is over-expressed in multiple cancer types.

Survivin is expressed at high levels in many cancers including: ovarian, prostate, breast, pancreatic, colorectal, multiple myeloma, B-cell lymphoma, glioblastoma, and melanoma.

Survivin is expressed in up to 90% of ovarian cancers¹.

2. Integral Role In Cancer Cell Survival

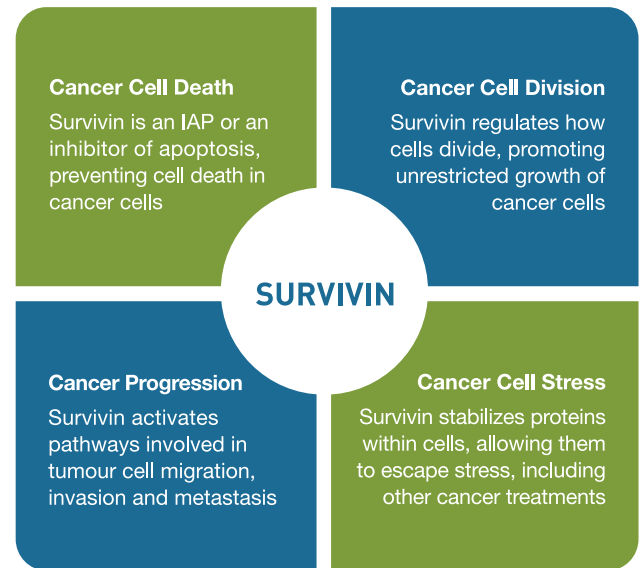
Survivin is essential for the survival of cancer cells and is an inhibitor of cell death (known as apoptosis).

Conversely, a vaccine that disrupts Survivin would lead to an increase in apoptosis and a decrease in tumour growth.

3. Excellent Potential Antigen

The National Cancer Institute² has recently recognized Survivin in the top 25 most promising antigen for cancer treatment based on its specificity, over-expression in cancer, and immunogenicity potential.

ROLES OF SURVIVIN



DPX-SURVIVAC: A UNIVERSAL TUMOR ANTIGEN FOR A SUPERIOR CANCER VACCINE

DPX-SURVIVAC

A novel therapeutic cancer vaccine designed to elicit a cellular immune response against survivin presenting cancer cells



DEPOVAX™

A multipurpose vaccine-in-oil delivery platform that generates a powerful immune response



SURVIVIN ANTIGENS

Phase I studies yielded encouraging safety results and an indication of immunogenicity

DPX-SURVIVAC CANCER VACCINE SIGNIFICANCE

Survivin is highly compatible with the DepoVax™ vaccine delivery platform.

DepoVax™ creates a “depot” at the site of injection causing a strong, rapid and long-lasting cellular response.

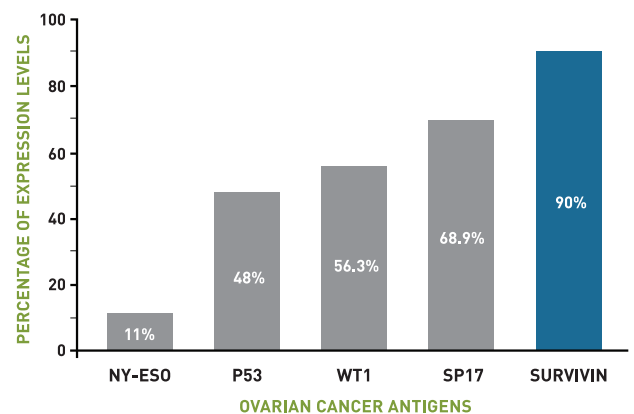
Preclinical studies of DPX-Survivac show that DepoVax™ significantly enhances the immunogenicity of the survivin antigens.

DPX-Survivac is being tested in a range of cancers to evaluate its broad market potential because it is not restricted to one particular HLA haplotype.

Preclinical safety assessments indicate that DPX-Survivac is well tolerated.

The manufacturing process for DPX-Survivac has been developed, as well as the analytical methods to support the clinical batch release as per regulatory requirements.

EXPRESSION LEVELS OF POTENTIAL ANTIGENS IN EPITHELIAL OVARIAN CANCER¹



Immunovaccine is interested in partnership opportunities at various stages of clinical development.

¹ Vermeij et al., Potential Target Antigens for a Universal Vaccine in Epithelial Ovarian Cancer, Clinical and Developmental Immunology Volume 2010, Article ID 891505, December 2010.

² Martin A. Cheever, et al., The Prioritization of Cancer Antigens: A National Cancer Institute Pilot Project for the Acceleration of Translational Research, Clinical Cancer Research, 2009;15(17) September 1, 2009.