

## **Tumor-Specific Immunity: The Promise of Cancer Vaccines**

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### **ABSTRACT:**

Cancer vaccines are a potentially effective way to improve the effectiveness of cancer immunotherapy. They are designed to elicit tumor-specific cellular immunity by antigen presentation by dendritic cells. Tumor-associated antigens (TAAs) have been given top priority by the National Cancer Institute as targets for cancer vaccines. AIA stands for "Adoptive Immune Activation." This approach involves transferring immune cells that have been activated and expanded outside the body back into the patient to target and eliminate cancer cells. The AIA took into account a number of parameters, including therapeutic efficacy, immunogenicity, carcinogenicity, specificity, expression level, and positive cell rate. The spectrum of cancer vaccines is delved in this paper, which covers their creation, modes of action, clinical uses, and future directions.

**KEYWORDS:** Cancer, vaccines, dendritic cells, tumor-associated antigens, immunogenicity