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# HVEGF26-104/RFASE Peptide Vaccine

National Cancer Institute

## Source

National Cancer Institute. *hVEGF26-104/RFASE Peptide Vaccine*. NCI Thesaurus. Code C118364.

A therapeutic cancer vaccine containing a truncated, synthetic peptide mimic of the human angiogenic activator vascular endothelial growth factor (VEGF), consisting of 79 amino acids (amino acids 26-104 of VEGF), and emulsified in the immunoadjuvant RFASE, with potential immunostimulatory and antitumor activities. Upon intramuscular vaccination, the hVEGF26-104 moiety of hVEGF26-104/RFASE acts as an antigen and induces an immune response against VEGF, which results in anti-VEGF antibody binding to and neutralization of endogenous VEGF. This prevents the binding of endogenous VEGF to the VEGF receptor (VEGFR) and blocks VEGFR-mediated endothelial cell signaling, resulting in an inhibition of both angiogenesis and tumor cell proliferation. VEGF plays a key role in angiogenesis, tumor cell proliferation and invasion. RFASE, which belongs to the group of sulpholipopolysaccharides (SLPs), is a synthetic polysaccharide covalently coupled to lipid groups and sulphate groups, and is able to induce a strong humoral immune response upon antigen administration.