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# Adenovirus 5-Human Guanylyl Cyclase C-PADRE Vaccine

National Cancer Institute

## Source

National Cancer Institute. *Adenovirus 5-Human Guanylyl Cyclase C-PADRE Vaccine*. NCI Thesaurus. Code C112005.

A replication-defective, recombinant adenoviral serotype 5 (Ad5) encoding human guanylyl cyclase C (hGCC) and the synthetic Pan DR epitope (PADRE), with potential antineoplastic and immunomodulating activities. Upon intramuscular administration, the Ad5-hGCC-PADRE vaccine expresses hGCC, which may induce both humoral and cellular immune responses against tumor cells expressing the hGCC antigen. This results in the immune-mediated inhibition of tumor cell proliferation, and leads to tumor death. The hGCC protein is normally restricted to intestinal epithelial cells but is overexpressed by metastatic colorectal tumors. PADRE is a helper T-lymphocyte epitope that is able to augment the magnitude and duration of the cytotoxic T-lymphocyte (CTL) response.