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H3.3K27M-specific Peptide Vaccine

National Cancer Institute

Source

National Cancer Institute. *H3.3K27M-specific Peptide Vaccine*. NCI Thesaurus. Code C132684.

A vaccine composed of a peptide derived from histone H3.3 containing the amino acid substitution mutation lysine (Lys) 27-to-methionine (H3.3K27M), with potential immunoactivating and antineoplastic activities. Upon administration of the H3.3K27M-specific peptide vaccine, the immune system may exert a cytotoxic T-lymphocyte (CTL)-mediated immune response against H3.3K27M-expressing tumor cells. The H3.3K27M mutation alters the methylation and acetylation profile of the histone H3 variant H3.3 at Lys 27. Modification of H3.3 at Lys 27 regulates gene expression, and the H3.3K27M mutation occurs in a variety of cancer cell types.