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Tigapotide

National Cancer Institute

Source

National Cancer Institute. *Tigapotide*. NCI Thesaurus. Code C78474.

A synthetic 15-mer peptide corresponding to amino acids 31-45 of the 94-amino acid isoform of human prostate secretory protein (PSP-94) with potential anti-metastasis and anti-angiogenesis activities. PSP-94-derived peptide PCK3145 may inhibit the secretion of the metastasis-related protein matrix metalloproteinase-9 (MMP-9) and its potential binding to its cell surface receptor CD44; may interfere with the vascular endothelial growth factor (VEGF) signaling pathway, resulting in an anti-angiogenesis effect; and may reduce the levels of parathyroid hormone-related protein (PTHrP), decreasing plasma calcium levels. PSP-94, one of three predominant proteins found in seminal fluid, may be down-regulated in prostate cancer, representing a potential survival mechanism for prostate cancer cells. MMP-9 is implicated in the invasion and metastasis of cancer. PTHrP may be expressed by various tumor cell types, resulting in the hypercalcemia of malignancy.