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STAT3 Decoy Oligonucleotide

National Cancer Institute

Source

National Cancer Institute. *STAT3 Decoy Oligonucleotide*. NCI Thesaurus. Code C78822.

A double-stranded 15-mer oligonucleotide, corresponding closely to the signal transducer and activator of transcription 3 (STAT3) response element within the c-fos promoter, with potential antineoplastic activity. STAT3 decoy oligonucleotide binds specifically to activated STAT3 and blocks binding of STAT3 to DNA sequences on a variety of STAT3-responsive promoters, which results in the inhibition of STAT3-mediated transcription and, potentially, the inhibition of tumor cell proliferation. STAT3 is constitutively activated in a variety of cancers including squamous cell carcinoma of the head and neck, contributing to the loss of cell growth control and neoplastic transformation.