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STAT3 Inhibitor OPB-51602

National Cancer Institute

Source

National Cancer Institute. *STAT3 Inhibitor OPB-51602*. NCI Thesaurus. Code C95889.

An orally bioavailable inhibitor of signal transducer and activator of transcription 3 (STAT3), with potential antineoplastic activity. STAT3 inhibitor OPB-51602 inhibits the phosphorylation and thus the activation of STAT3 protein, impeding STAT3 protein from translocating from the cytoplasm to the nucleus and thereby blocking STAT3's regulation of gene expression through direct binding to the promoters of responsive genes. STAT3 regulates the cellular functions that lead to the cancer phenotype, and constitutive activation of STAT3 is observed in a wide range of human cancers, inducing uncontrolled proliferation and neoplastic transformation.