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# Sodium Stibogluconate

National Cancer Institute

## Source

National Cancer Institute. *Sodium Stibogluconate*. NCI Thesaurus. Code C61083.

Pentavalent antimony (Sb) in differential complex formation with gluconic acid with leishmanicidal and potential antineoplastic activities. The Sb moiety of sodium stibogluconate (SSG) may inhibit protein tyrosine phosphorylases (PT Pases) by covalently modifying sulfhydryl groups in PT Pase cysteine residues, resulting in specific inactivation of SH2 domain-containing tyrosine phosphatases-1 and -2 (SHP-1 and SHP-2), PT Pases which negatively regulate interferon (IFN) signaling; enhancement of IFN-induced Stat1 tyrosine phosphorylation; and induction of cellular protein tyrosine phosphorylation. SSG in combination with IFN-alpha may synergize to overcome tumor cell resistance to IFN-alpha-mediated apoptosis.