



LKT Laboratories, Inc.

Tyrphostin AG490

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## Product Information

Product ID T9969

CAS No. 133550-30-8

Chemical Name N-Benzyl-3,4-dihydroxy-benzylidenecyanoacetamide

Synonym Tyrphostin B42

Formula  $C_{17}H_{14}N_2O_3$

Formula Wt. 294.31

Melting Point 215-216.5°C

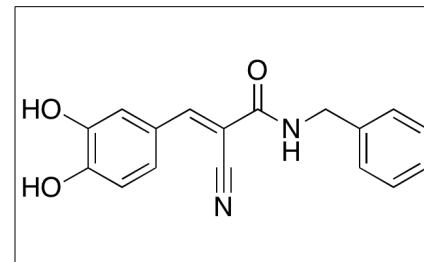
Purity ≥98%

Solubility Soluble in DMSO.

Store Temp 4°C

Ship Temp Ambient

**Description** Tyrphostin AG490 inhibits JAK2 and exhibits anti-diabetic, anti-atherosclerotic, immunosuppressive, and anticancer activities. Tyrphostin AG490 inhibits joint inflammation in vivo by suppressing activation of STAT3, production of TNF- $\alpha$  and RANKL, and differentiation of osteoclasts. Tyrphostin AG490 also induces programmed cell death and inhibits invasion and adhesion of leukemia cells. In animal models of atherosclerosis, tyrphostin AG490 decreases activity and expression of Nox and levels of CD68, decreasing the formation of atherosclerotic lesions. Additionally, tyrphostin AG490 increases expression of PPAR $\gamma$  and decreases blood glucose levels in vivo, preventing the onset of autoimmune type 1 diabetes. This compound also inhibits expression of MCP-1, IFN $\gamma$ , and MHC class II, decreases infiltration of T cells and macrophages, and suppresses deposition of IgG in animal models of lupus nephritis. Tyrphostin AG490 may also inhibit EGFR.



## Pricing and Availability

*Bulk quantities available upon request*

Product ID	Size	List Price
T9969	5 mg	\$98.80
T9969	10 mg	\$168.90
T9969	25 mg	\$376.50

**References** Gyurkovska V, Stefanova T, Dimitrova P, et al. Tyrosine Kinase Inhibitor Tyrphostin AG490 Retards Chronic Joint Inflammation in Mice. *Inflammation*. 2014 Aug;37(4):995-1005. PMID: 24473905.

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Fenyó IM, Florea IC, Raicu M, et al. Tyrphostin AG490 reduces NAPDH oxidase activity and expression in the aorta of hypercholesterolemic apolipoprotein E-deficient mice. *Vascul Pharmacol*. 2011 Mar-Jun;54(3-6):100-6. PMID: 21457788.

Wang S, Yang N, Zhang L, et al. Jak/STAT signaling is involved in the inflammatory infiltration of the kidneys in MRL/lpr mice. *Lupus*. 2010 Sep;19(10):1171-80. PMID: 20501525.

Caceres-Cortes JR. A potent anti-carcinoma and anti-acute myeloblastic leukemia agent, AG490. *Anticancer Agents Med Chem*. 2008 Oct;8(7):717-22. PMID: 18855573.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.