

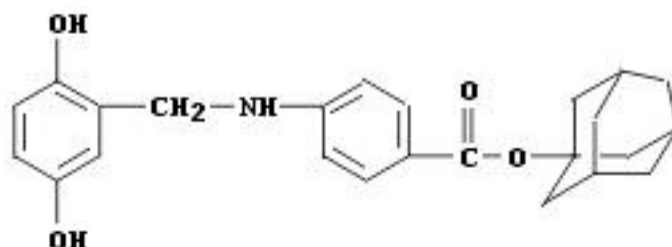
Adaphostin

1. Description

Adaphostin is the lipophilic, adamantyl ester of tyrphostin AG 957 that displays antiproliferative properties. It has been demonstrated to be selective and ~ 3-4 fold more potent than the bcr/abl kinase inhibitor tyrphostin AG 957 and has a longer half-life in serum. Adaphostin downregulates bcr/abl autophosphorylation activity ($IC_{50} = 14 \mu M$), selectively blocks granulocyte colony formation in CML (chronic myelogenous leukemia) progenitor cells and inhibits proliferation of K562 cells ($IC_{50} = 9.8 \mu M$) by inducing apoptosis.

2. Product Information

Adaphostin:	order-no. PKI-ADPHTN
Synonyms:	Adaphostin, NSC 680410, NSC-680410
Chemical name.:	4-Amino-N-(2,5-dihydroxybenzyl)adamantyl Benzoate
Formula:	$C_{24}H_{27}NO_4$
Molecular Weight:	393.5 g/mol
Long Term Storage:	-20°C
Purity:	>97%
Appearance:	Off-white solid.
Solubility:	Soluble in DMSO or ethanol.
Chemical Structure:	



3. Product specific literature references:

- *ASvingen PA, Tefferi A, Kaufmann SH et al. (2000) "Effects of the bcr/abl kinase inhibitors AG957 and NSC 680410 on chronic myelogenous leukemia cells in vitro" Clin Cancer Res. 6(1):237-49*
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- *Avramis IA, Laug WE, Sausville EA, Avramis VI (2003) "Determination of drug synergism between the tyrosine kinase inhibitors NSC 680410 (adaphostin) and/or STI571 (imatinib mesylate, Gleevec) with cytotoxic drugs against human leukemia cell lines" Cancer Chemother Pharmacol. 52(4):307-18*
- *Yu C, Rahmani M, Grant S et al. (2004) "Induction of apoptosis in human leukemia cells by the tyrosine kinase inhibitor adaphostin proceeds through a RAF-1/MEK/ERK- and AKT-dependent process" Oncogene 23(7):1364-76*
- *Kaur G, Narayanan VL, Sausville EA et al. (2005) "Synthesis, structure-activity relationship, and p210(bcr-abl) protein tyrosine kinase activity of novel AG 957 analogs" Bioorg Med Chem. 13(5):1749-61*
- *Shanafelt TD, Lee YK, Kay NE et al. (2005) "Adaphostin-induced apoptosis in CLL B cells is associated with induction of oxidative stress and exhibits synergy with fludarabine" Blood 105(5):2099-106*