



NIH AIDS Reagent Program

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DATA SHEET

Reagent:	2',3'-didehydro-3'-deoxythymidine (Stavudine; D4T)
Catalog Number:	10200
Lot Number:	040900
Release Category:	A
Provided:	20 mg
Empirical Formula:	$C_{10}H_{12}N_2O_4$
Molecular Weight:	224.2
CAS Num:	3056-17-5
Purity:	95 - 99% (by HPLC)
Solubility:	Water; methanol; insoluble in hexanes.
Mechanical Action:	Stavudine is a nucleoside analog of thymidine. Stavudine is phosphorylated by cellular enzymes to form stavudine triphosphate. Stavudine triphosphate inhibits the activity of HIV reverse transcriptase by competing with substrate deoxythymidine triphosphate and when incorporated causes termination of DNA chain elongation. Stavudine triphosphate inhibits cellular DNA polymerase and reduces synthesis of mitochondrial DNA.
Recommended Storage:	Room temperature. Once resuspended, working aliquots can be stored at -20°C .
Contributor:	Division of AIDS, NIAID

ALL RECIPIENTS OF THIS MATERIAL MUST COMPLY WITH ALL APPLICABLE BIOLOGICAL, CHEMICAL, AND/OR RADIOCHEMICAL SAFETY STANDARDS INCLUDING SPECIAL PRACTICES, EQUIPMENT, FACILITIES, AND REGULATIONS. NOT FOR USE IN HUMANS.

NOTE:

Acknowledgment for publications should read "The following reagent was obtained through the NIH AIDS Reagent Program, NIAID, NIH: 2', 3'-didehydro-3'-deoxy-thymidine (Stavudine D4T)."

This compound is restricted for "research purposes only" and is limited to 40 mg per requester per year. Not available for release to commercial organizations outside of the USA.

Recipient agrees that the reagent (2', 3'-didehydro-3'-deoxy-thymidine (Stavudine D4T)) use is permitted only as a standard for in vitro and/or studies in animals for inhibition of HIV replication.

Last Updated

July 24, 2018

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