

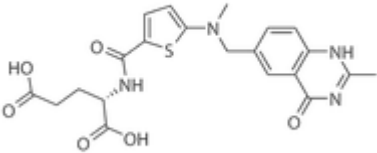


Product Introduction

Raltitrexed

Raltitrexed is a thymidylate synthase inhibitor with an IC50 of 9 nM for the inhibition of L1210 cell growth.

Technical Data:

Molecular Weight (MW):	458.49	
Formula:	C ₂₁ H ₂₂ N ₄ O ₆ S	
Solubility (25 °C)	DMSO 92 mg/mL	
* <1 mg/ml means slightly soluble or insoluble:	Water <1mg/mL	
	Ethanol <1mg/mL	
Purity:	>98%	
Storage:	3 years -20°C Powder 6 months-80°C in DMSO	
CAS No.:	112887-68-0	

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Biological Activity

Raltitrexed (Tomudex) is a thymidylate synthase inhibitor with an IC₅₀ of 9 nM for the inhibition of L1210 cell growth. Raltitrexed (Tomudex) is an antimetabolite drug used in cancer chemotherapy. Raltitrexed (Tomudex) is chemically similar to folic acid and is in the class of chemotherapy drugs called folate antimetabolites. It works by inhibiting Dihydrofolate reductase, an enzyme used in the synthesis of tetrahydrofolate, thereby preventing the synthesis of thymidylate. [1]

In a study, there was an inverse relationship between reduced folate cellular content and raltitrexed IC₅₀; this relationship did not, however, reach statistical significance. The only significant relationship was found between basal cellular folypolyglutamate synthetase activity and raltitrexed IC₅₀ $r = -0.56$, $p = 0.03$. Tumor cells with a relatively high folypolyglutamate synthetase activity were more sensitive to raltitrexed cytotoxic effects and vice versa.[2]

References

[1] <http://en.wikipedia.org/wiki/Raltitrexed> ;

[2] http://www.medscape.com/viewarticle/456039_4 ;



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