

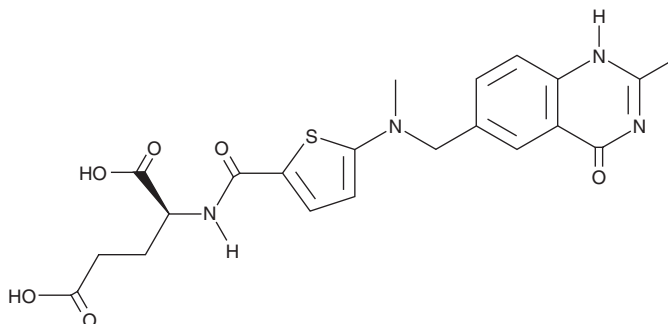
PRODUCT INFORMATION



Raltitrexed

Item No. 26079

CAS Registry No.: 112887-68-0
Formal Name: N-[[5-[[[(3,4-dihydro-2-methyl-4-oxo-6-quinazoliny)methyl]methylamino]-2-thienyl]carbonyl]-L-glutamic acid
Synonyms: ICI-D 1694, ZD 1694
MF: C₂₁H₂₂N₄O₆S
FW: 458.5
Purity: ≥98%
UV/Vis.: λ_{max}: 226, 266, 341 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Raltitrexed is supplied as a crystalline solid. A stock solution may be made by dissolving the raltitrexed in the solvent of choice. Raltitrexed is soluble in organic solvents such as ethanol and DMSO, which should be purged with an inert gas. It is also soluble in water. The solubility of raltitrexed in ethanol and water is approximately 1 mg/ml (at 25°C) and approximately 92 mg/ml in DMSO (at 25°C). Raltitrexed is also soluble in methanol (warmed). We do not recommend storing the aqueous solution for more than one day.

Description

Raltitrexed is an inhibitor of thymidylate synthase ($K_i = 62 \text{ nM}$).¹ It inhibits the growth of L1210 mouse lymphocytic leukemia cells *in vitro* ($IC_{50} = 8 \text{ nM}$) as well as reduces thymidylate synthase activity and completely eliminates tumors in a mouse L1210:ICR ascitic tumor model when administered at a dose of 4 mg/kg, effects that can be reversed by administration of thymidine. It also reduces tumor growth and the number of metastases in an HCT116-luc mouse xenograft model.² Formulations containing raltitrexed have been used in the treatment of advanced colorectal cancers.

References

1. Jackman, A.L., Taylor, G.A., Gibson, W., *et al.* ICI D1694, a quinazoline antifolate thymidylate synthase inhibitor that is a potent inhibitor of L1210 tumor cell growth *in vitro* and *in vivo*: A new agent for clinical study. *Cancer Res.* **51(20)**, 5579-5586 (1991).
2. Qiu, C., Li, Y., Liang, X., *et al.* A study of peritoneal metastatic xenograft model of colorectal cancer in the treatment of hyperthermic intraperitoneal chemotherapy with Raltitrexed. *Biomed Pharmacother.* **92**, 149-156 (2017).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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