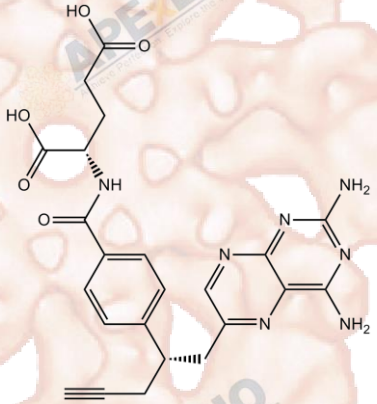
Product Data Sheet

Pralatrexate



Cat. No.:	A4350
CAS No.:	146464-95-1
Formula:	C23H23N7O5
M.Wt:	477.47
Synonyms:	
Target:	Metabolism
Pathway:	DHFR
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

≥23.85 mg/mL in DMSO; insoluble in H2O; insoluble in EtOH

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.0944 mL	10.4719 mL	20.9437 mL
5 mM	0.4189 mL	2.0944 mL	4.1887 mL
10 mM	0.2094 mL	1.0472 mL	2.0944 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Antifolate,a folate analog
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Cancer cell lines, NCI-H460 human NSCLC cells, MV522 human metastatic human NSCLC cells
Preparation method：	The solubility of this compound in DMSO is > 23.9 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

	Reacting conditions:	72h
	Applications:	Pralatrexate showed antiproliferative activity against 15 cancer cell lines with the IC50 values ranged from 0.01 ± 0.002 μM for the prostate cancer cell line PC3 to > 350 μM for the MDA-MB-435 cell line. Pralatrexate dose-dependently inhibited the activity of DHFR. In NCI-H460 cells, treatment with pralatrexate for 15 or 60 min resulted in a short-term uptake of radiolabeled antifolates.
In Vivo	**Animal experiment**	
	Animal models:	Female nude mice (nu/nu) bearing NCI-H460 or MV522 tumor cells
	Dosage form:	Intraperitoneal injection, 1 and 2 mg/kg, every day×5, for two cycles of 5 days
	Applications:	In MV522 human non-small cell lung cancer (NSCLC) xenograft, pralatrexate showed increased antitumor activity. In the 2 mg/kg pralatrexate-treated group, the 38% tumor growth inhibition (TGI) was observed. In NCI-H460 NSCLC xenograft, pralatrexate showed antitumor activity in a dose-dependent way. TGI of 1 mg/kg and 2 mg/kg pralatrexate-treated groups was 34% and 52%, respectively. In NCI-H460 and MV522 human tumor xenografts, pralatrexate resulted in dose-dependent weight loss, which suggested its toxicity.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Izbicka E, Diaz A, Streeper R, et al. Distinct mechanistic activity profile of pralatrexate in comparison to other antifolates in in vitro and in vivo models of human cancers[J]. Cancer chemotherapy and pharmacology, 2009, 64(5): 993-999.

[2]. Serova M, Bieche I, Sablin M P, et al. Single agent and combination studies of pralatrexate and molecular correlates of sensitivity[J]. British journal of cancer, 2011, 104(2): 272.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage

temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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