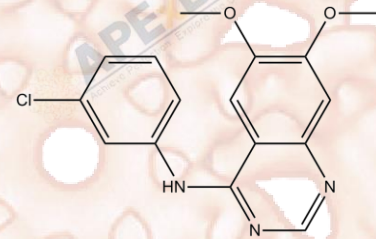


Product Data Sheet

AG-1478

Cat. No.:	A8357
CAS No.:	153436-53-4
Formula:	C ₁₆ H ₁₄ CIN ₃ O ₂
M.Wt:	315.75
Synonyms:	Tyrphostin AG-1478; AG 1478; NSC 693255; AG1478
Target:	JAK/STAT Signaling
Pathway:	EGFR
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥15.8 mg/mL in DMSO; ≥2.38 mg/mL in EtOH with gentle warming

In Vitro

Preparing Stock Solutions	Mass			
	Solvent Concentration	1mg	5mg	10mg
	1 mM	3.1671 mL	15.8353 mL	31.6706 mL
	5 mM	0.6334 mL	3.1671 mL	6.3341 mL
	10 mM	0.3167 mL	1.5835 mL	3.1671 mL

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

Biological Activity

Shortsummary

EGFR inhibitor,potent and selective

IC₅₀ & Target

3 nM (EGFR), >100 μM (HER2), >100 μM (PDGFR)

Cell Viability Assay

In Vitro

Cell Line:	Human hepatocellular carcinoma HA22T/VGH cell line
Preparation method:	Soluble in DMSO > 15.8mg/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:	6.25, 12.5, 25µM; 24hr
	Applications:	Tyrphostin AG-1478, a potent and specific inhibitor of EGFR (Epidermal Growth Factor Receptor) tyrosine kinase, plays a key role in the control of normal cellular growth and abnormal cell proliferation. Tyrphostin AG-1478 shows an enhanced in vitro anti-tumor activity in HA22T/VGH cells when entrapped into NLC(nanostructured lipid carriers) systems compared to free drug.
In Vivo	Animal experiment	
	Animal models:	Male C57BL/6 mice aged 8 weeks, male ApoE-/- mice aged 8 weeks
	Dosage form:	10 mg/kg/day, 8 weeks, oral gavage
	Applications:	Administration of AG1478 significantly reduced myocardial inflammation, fibrosis, apoptosis, and dysfunction in both two obese mouse models.
	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]. Bondi ML1, Azzolina A, et al, Entrapment of an EGFR inhibitor into nanostructured lipid carriers (NLC) improves its antitumor activity against human hepatocarcinoma cells. J Nanobiotechnology, 2014. 12(21): p. 1477-3155.
- [2]. Li W1,2, Fang Q1, EGFR Inhibition Blocks Palmitic Acid-induced inflammation in cardiomyocytes and Prevents Hyperlipidemia-induced Cardiac Injury in Mice. Sci Rep. 2016 Apr 18;6:24580. doi: 10.1038/srep24580.

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 APEX BIO 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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