

#9842 Store at -20C

Tyrphostin AG 1478



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Background	Tyrphostin AG 1478 is a tyrosine kinase inhibitor specifically selective to EGFR (ErbB1), with an IC ₅₀ of about 3 nM <i>in vitro</i> (1,2). Treatment of cell with 50-150 nM of AG 1478 can substantially block EGFR activation <i>in vivo</i> (3). In addition to EGFR, AG 1478 also inhibits ErbB4 activation induced by radiation in cancer cells (4). Testing of AG 1478 alone or in combination with other treatments to assess anti-tumor and anti-fibrotic effectiveness has yielded promising results (5-8).
Molecular Formula	C ₁₆ H ₁₄ ClN ₃ O ₂
Molecular Weight	315.76 g/mol
Purity	>99%
CAS	175178-82-2
Solubility	Soluble in DMSO at 10mg/ml.
Storage	Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.
Directions for Use	<p>Tyrphostin AG 1478 is supplied as 400 µg powder. Store at or below -20°C. Before use, dissolve powder in 1.23 ml DMSO to make a 1 mM</p> <p>Tyrphostin AG 1478 stock solution. For working concentrations of 100 nM-200 nM, dilute DMSO stock 1:10,000 to 1:5,000. Treat cells with the desired concentration for 30 minutes.</p>
Background References	<ol style="list-style-type: none"> 1. Osherov, N. and Levitzki, A. (1994) <i>Eur J Biochem</i> 225, 1047-53. 2. Levitzki, A. and Gazit, A. (1995) <i>Science</i> 267, 1782-8. 3. Fan, Z. et al. (1995) <i>J Cell Biol</i> 131, 235-42. 4. Bowers, G. et al. (2001) <i>Oncogene</i> 20, 1388-97. 5. Nagane, M. et al. (2001) <i>J Neurosurg</i> 95, 472-9. 6. Ishii, Y. et al. (2006) <i>Am J Respir Crit Care Med</i> 174, 550-6. 7. Ellis, A.G. et al. (2006) <i>Biochem Pharmacol</i> 71, 1422-34. 8. Rahman, M. et al. (2009) <i>Breast Cancer Res Treat</i> 113, 217-30.

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