Revision 4

Store at -20C

#9842

Tyrphostin AG 1478

Cell Signaling TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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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 *in vitro* (1,2). Treatment of cell with 50-150 nM of AG 1478 can substantially block EGFR activiation *in vivo* (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

$C_{16}H_{14}ClN_3O_2$

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 -20ºC, 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

Tyrphostin AG 1478 is supplied as 400 µg powder. Store at or below -20ºC. Before use, dissolve powder in 1.23 ml DMSO to make a 1 mM

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.

Background References

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