

Product Specification Sheet

Product Name: AG-1024

Catalog Number: C2102

Technical information:

Chemical Formula: $C_{14}H_{13}BrN_2O$

CAS #: 65678-07-1

Molecular Weight: 305.17

Purity: > 98%

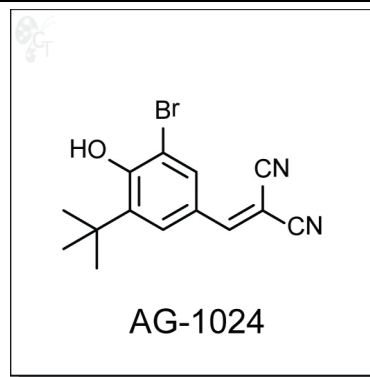
Appearance: Orange solid

Solubility: Soluble in DMSO up to 100 mM

Chemical Name: 2-(3-bromo-5-(tert-butyl)-4-hydroxybenzylidene)malononitrile

Storage: For longer shelf life, store solid powder or DMSO solution at -20°C desiccated.

Shelf Life: In the unopened package, powder is stable for 1 year and DMSO solution is stable for 6 months under proper storage condition.



- Handling:**
- To make 10 mM stock solution, add 0.328mL of DMSO for each mg of AG-1024.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: AG-1024 is a selective IGF-1R kinase inhibitor with modest activity. It inhibits insulin-stimulated cellular proliferation with IC₅₀ of 0.4 μM. [1] AG-1024 showed synergistic effect with irradiation and inhibited proliferation and induced apoptosis in human breast cancer MCF-7 cells. [2] AG-1024 also inhibited autocrine growth of human prostate cancer DU145 cells with an IC₅₀ value of 2.5 μM.[3]

In vivo, daily administration of AG-1024 through i.v. route at 1-2 mg/kg has been shown to increase the survival rate of mouse injected with Ba/F3-p210 cells. [4]

- Reference:**
1. Párrizas M, et al. Specific inhibition of insulin-like growth factor-1 and insulin receptor tyrosine kinase activity and biological function by tyrphostins. *Endocrinology*. 1997; 138(4):1427-33. Pubmed ID: 9075698
 2. Wen B, et al. Tyrphostin AG 1024 modulates radiosensitivity in human breast cancer cells. *Br J Cancer*. 2001; 85(12):2017-21. Pubmed ID: 11747348
 3. Kisielewska J, et al. The effect of tyrosine kinase inhibitors, tyrphostins: AG1024 and SU1498, on autocrine growth of prostate cancer cells (DU145). *Folia Histochem Cytobiol*. 2008; 46(2):185-91. Pubmed ID: 18519236
 4. Deutsch E, et al. Tyrosine kinase inhibitor AG1024 exerts antileukaemic effects on STI571-resistant Bcr-Abl expressing cells and decreases AKT phosphorylation. *Br J Cancer*. 2004; 91(9):1735-41. Pubmed ID: 15494718

To reorder: <http://www.cellagentech.com/AG-1024/>

For Technical Support: technical@cellagentech.com

Chemicals are sold for research use only, not for clinical or diagnostic use.