

Product Specification Sheet

Product Name: AT7519

Catalog Number: C2875

Technical information:

Chemical Formula: $C_{16}H_{17}Cl_2N_5O_2$

CAS #: 902135-91-5

Molecular Weight: 382.24

Purity: > 98%

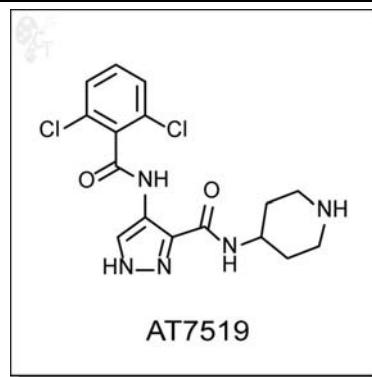
Appearance: Light Yellow solid

Solubility: Soluble in DMSO up to 25 mM

Chemical Name: 4-(2,6-dichlorobenzamido)-N-(piperidin-4-yl)-1H-pyrazole-3-carboxamide

Storage: Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.

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 0.262mL of DMSO for each mg of AT7519.
 - For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: AT7519 is a pyrazole-based multi-cyclin dependent kinase inhibitor with IC₅₀ activity against CDK2, CDK5, and CDK9, of 47, 13, and <10 nM, respectively. Additionally, AT7519 is active against GSK3beta (IC₅₀ = 89 nM). AT7519 shows dose-dependent cytotoxicity in a wide variety of cell lines with IC₅₀s of 0.5 uM, 0.5 uM, and 2 uM) for MM.1s, U266, and MM.1R cells, respectively. AT7519 induces cell cycle arrest in the G₀/G₁ and G₂/M phases. (1)

In a panel of 26 human tumor cell lines, AT7519 showed potent antiproliferative activity at 40-940 nM. 24h treatment of HCT116 cells showed phosphorylation inhibition of CDK1 substrate PP1a (T320) and CDK2 substrates Rb (T821) and NPM (T199). (2)

- Reference:**
1. Santo et al., AT7519, A novel small molecule multi-cyclin-dependent kinase inhibitor, induces apoptosis in multiple myeloma via GSK-3b activation and RNA polymerase II inhibition. *Oncogene*, 2010, 29, 2325-2336. Pubmed ID: 20101221
 2. Squires et al., Biological characterization of AT7519, a small-molecule inhibitor of cyclin-dependent kinases, in human tumor cell lines. 2009, 8, 324-332. Pubmed ID: 19174555

To reorder: <http://www.cellagentech.com/AT7519/>

For Technical Support: technical@cellagentech.com

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