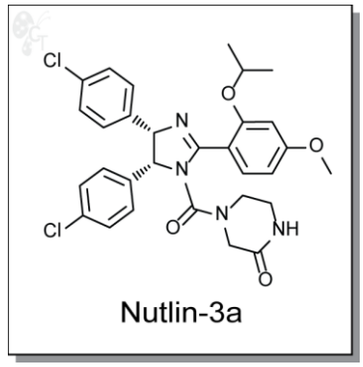
Product Specification Sheet

Product Name: Nutlin-3a

Catalog Number: C6885



Nutlin-3a

Technical information:

Chemical Formula:	$C_{30}H_{30}Cl_2N_4O_4$
CAS #:	675576-98-4
Molecular Weight:	581.49
Purity:	> 98%
Appearance:	white solid
Solubility:	Soluble in DMSO up to 100 mM
Chemical Name:	2-Piperazinone, 4-[[(4S,5R)-4,5-bis(4-chlorophenyl)-4,5-dihydro-2-[4-methoxy-2-(1-methylethoxy)phenyl]-1H-imidazol-1-yl]carbonyl]-
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 0.172mL of DMSO for each mg of Nutlin-3a.
- For DMSO solution, briefly spin the vial at 500 rpm in a 50 mL conical tube to ensure maximum sample recovery.

Biological Activity: Nutlin-3a is an antagonist of murine double minute-2 (MDM2). By inhibiting MDM2-p53 interactions (IC50 = 90 nM), Nutlin-3a stabilizes p53 and induces cell cycle arrest and apoptosis in cells with functional p53. [1] Nutlin-3a induces autophagy and upregulation of AMPK in a p53-dependent manner in acute myelogenous leukemia cells (1-5 µM). [2]

Reference:

1. Vassilev LT, et al. In vivo activation of the p53 pathway by small-molecule antagonists of MDM2. Science. 2004; 303(5659):844-8 Pubmed ID: 14704432
2. Borthakur G, et al. MDM2 Inhibitor, Nutlin 3a, Induces p53 Dependent Autophagy in Acute Leukemia by AMP Kinase Activation.PLoS One. 2015; 10(10):e0139254 Pubmed ID: 26440941

To reorder: http://www.cellagentech.com/Nutlin-3a/

For Technical Support: technical@cellagentech.com

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