



## Nutlin-3

## Data Sheet

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<b>Catalog Number:</b>	MC11094	<b>Product Type:</b>	Small Molecule
<b>Bio-Activity:</b>	p53/mdm2 inhibitor	<b>CAS #:</b>	548472-68-0
<b>Research Categories:</b>	Cell death, stem cells, cancer	<b>Chemical Name:</b>	(±)-4-[4,5-Bis(4-chlorophenyl)-2-(2-isopropoxy-4-methoxy-phenyl)-4,5-dihydro-imidazole-1-carbonyl]-piperazin-2-one
<b>Solubility:</b>	Soluble in DMSO (up to 50 mg/ml), or in Ethanol (up to 50 mg/ml).	<b>Molecular Formula:</b>	C <sub>30</sub> H <sub>30</sub> Cl <sub>2</sub> N <sub>4</sub> O <sub>4</sub>
<b>Purity:</b>	> 98%	<b>Molecular Weight:</b>	581.51
<b>Format:</b>	Powder	<b>Ship Temp:</b>	Ambient
<b>Storage:</b>	-20°C		

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### Application Notes

**Description/Data:**

MDM2 antagonist; inhibits the MDM2-p53 interaction ( $IC_{50} = 0.09 \mu M$ ) and activates p53 [1]. Displays antiproliferative activity and induces apoptosis in a variety of tumor cells [2-4].

**References:**

- 1) Vassilev et al. (2004), In vivo activation of the p53 pathway by small-molecule antagonists of MDM2.; *Science*, 303 844.
- 2) Ghassemifar et al. (2012), MDM2 antagonism by nutlin-3 induces death in human medulloblastoma cells; *Neurosci. Lett.*, 513 106
- 3) Manfe et al. (2012), MDM2 inhibitor nutlin-31 induces apoptosis and senescence in cutaneous T-cell lymphoma: role of p53; *J. Invest. Dermatol.*, 132 1487
- 4) Kunkele et al. (2012), Pharmacological activation of the p53 pathway by nutlin-3 exerts anti-tumoral effects in medulloblastomas; *Neuro. Oncol.*, 14 859

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