

PRODUCT INFORMATION

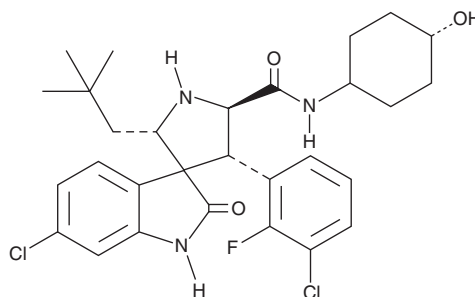


MI-77301

Item No. 17473

CAS Registry No.: 1303607-60-4
Formal Name: (2'S,3R,4'S,5'R)-6-chloro-4'-(3-chloro-2-fluorophenyl)-2'-(2,2-dimethylpropyl)-1,2-dihydro-N-(trans-4-hydroxycyclohexyl)-2-oxo-spiro[3H-indole-3,3'-pyrrolidine]-5'-carboxamide

Synonym: SAR405838
MF: C₂₉H₃₄Cl₂FN₃O₃
FW: 562.5
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MI-77301 is supplied as a crystalline solid. A stock solution may be made by dissolving the MI-77301 in the solvent of choice, which should be purged with an inert gas. MI-77301 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of MI-77301 in these solvents is approximately 25 mg/ml.

MI-77301 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MI-77301 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. MI-77301 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The protein p53, often called the 'guardian of the genome,' is a transcription factor that is activated in response to cellular stress (low oxygen levels, heat shock, DNA damage, etc.) and acts to prevent further proliferation of the stressed cell by promoting cell cycle arrest or apoptosis. Its role as a tumor suppressor is evident by the observation that approximately 50% of human tumors have mutated or non-functional p53. Mdm2, a key negative regulator of p53, which is over-expressed in many human tumors, functions by binding to and targeting p53 for proteasomal degradation. MI-77301 binds to MDM2 with a K_i value of 0.88 nM and blocks the MDM2-p53 interaction.¹ It activates wild-type p53 *in vitro* and in xenograft tumor tissue of leukemia and solid tumors, leading to p53-dependent cell cycle arrest and/or apoptosis.¹ In an SJSA-1 xenograft model of osteosarcoma, a single dose of 200 mg/kg MI-77301 induces complete tumor regression in mice by upregulating the pro-apoptotic protein PUMA.¹

Reference

1. Wang, S., Sun, W., Zhao, Y., *et al.* SAR405838: An optimized inhibitor of MDM2-p53 interaction that induces complete and durable tumor regression. *Cancer Res.* **74**(20), 5855-5865 (2014).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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