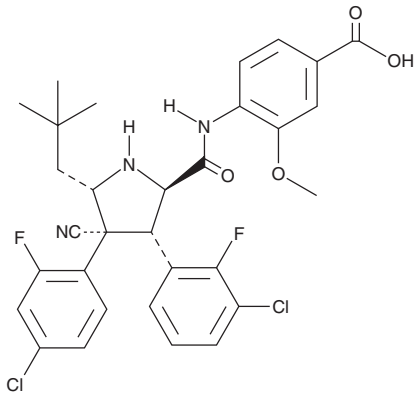
PRODUCT INFORMATION

RG7388

Item No. 21532

CAS Registry No.:	1229705-06-9
Formal Name:	4-[[[(2R,3S,4R,5S)-3-(3-chloro-2-fluorophenyl)-4-(4-chloro-2-fluorophenyl)-4-cyano-5-(2,2-dimethylpropyl)-2-pyrrolidinyl]carbonyl]amino]-3-methoxy-benzoic acid
Synonyms:	Idasanutlin, Ro 5503781
MF:	$C_{31}H_{29}Cl_2F_2N_3O_4$
FW:	616.5
Purity:	≥98%
UV/Vis.:	λ_{max}: 220, 274, 302 nm
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

RG7388 is supplied as a crystalline solid. A stock solution may be made by dissolving the RG7388 in the solvent of choice, which should be purged with an inert gas. RG7388 is soluble in organic solvents such as ethanol and DMSO. It is also soluble in water. The solubility of RG7388 in ethanol, DMSO, and water is approximately 8, 100, and 1 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

RG7388 is a non-imidazoline, selective MDM2 inhibitor that blocks the binding of MDM2 to p53 (IC_{50} = 30 nM).[1] By inhibiting MDM2, RG7388 activates the p53 pathway in SJSA1 osteosarcoma cells and inhibits the growth of xenografts in nude mice.[1,2] RG7388 is orally available and prolonged daily administration results in loss of MDM2 and p21 protein, growth inhibition, and apoptosis in SJSA1 xenograft tumors.[2] Like other MDM2 inhibitors, RG7388 competitively inhibits multi-drug resistance protein 1 (MRP1) and reverse MRP1-mediated multidrug resistance in cancer cells in a p53-independent manner.[3]

References

1. Ding, Q., Zhang, Z., Liu, J.J., *et al.* Discovery of RG7388, a potent and selective p53-MDM2 inhibitor in clinical development. *J. Med. Chem.* **56(14)**, 5979-5983 (2013).
2. Higgins, B., Glenn, K., Walz, A., *et al.* Preclinical optimization of MDM2 antagonist scheduling for cancer treatment by using a model-based approach. *Clin. Cancer Res.* **20(14)**, 3742-3752 (2014).
3. Chen, L., Zhao, Y., Halliday, G.C., *et al.* Structurally diverse MDM2-p53 antagonists act as modulators of MDR-1 function in neuroblastoma. *Br. J. Cancer* **111(4)**, 716-725 (2014).

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