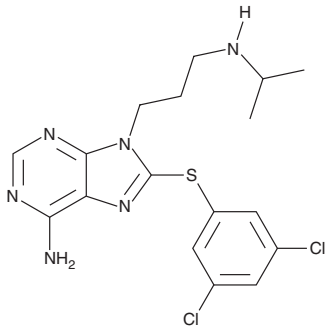
PRODUCT INFORMATION

PU-WS13

Item No. 18409

CAS Registry No.:	1454619-14-7
Formal Name:	6-amino-8-[(3,5-dichlorophenyl) thio]-N-(1-methylethyl)-9H-purine-9-propanamine
Synonym:	WS13
MF:	$C_{17}H_{20}Cl_2N_6S$
FW:	411.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 308 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

PU-WS13 is supplied as a crystalline solid. A stock solution may be made by dissolving the PU-WS13 in the solvent of choice, which should be purged with an inert gas. PU-WS13 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PU-WS13 in ethanol is approximately 25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

PU-WS13 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PU-WS13 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PU-WS13 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PU-WS13 is an inhibitor of the heat shock protein family member and chaperone protein glucose-regulated protein 94 (GRP94; IC_{50} = 0.22 µM).[1] It is selective for GRP94 over the chaperones Hsp90α, Hsp90β, and TRAP1 (IC_{50}s = 27.3, 41.8, and 7.3 µM, respectively). PU-WS13 (0.5, 2.5, and 12.5 µM) induces apoptosis without increasing Hsp70 protein levels in HER2-overexpressing SK-BR-3, BT474, and MDA-MB-361 breast cancer cells.[2] It also induces apoptosis and necrosis in multiple myeloma cells but does not induces cell death in pre-B leukemic cells.[3]

References

1. Patel, H.J., Patel, P.D., Ochiana, S.O., *et al.* Structure-activity relationship in a purine-scaffold compound series with selectivity for the endoplasmic reticulum Hsp90 paralog Grp94. *J. Med. Chem.* **58(9)** (2015).
2. Patel, P.D., Yan, P., Seidler, P.M., *et al.* Paralog-selective Hsp90 inhibitors define tumor-specific regulation of HER2. *Nat. Chem. Bio.* **9(11)**, 677-684 (2013).
3. Hua, Y., White-Gilbertson, S., Kellner, J., *et al.* Molecular chaperone gp96 is a novel therapeutic target of multiple myeloma. *Clin. Cancer Res.* **19(22)**, 6242-6251 (2013).

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