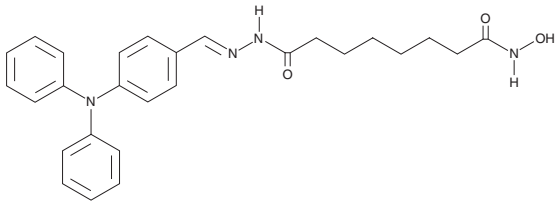
PRODUCT INFORMATION

WT161

Item No. 21099

CAS Registry No.:	1206731-57-8
Formal Name:	8-(hydroxyamino)-8-oxo-octanoic acid, 2-[[4-(diphenylamino)phenyl] methylene]hydrazide
MF:	$C_{27}H_{30}N_4O_3$
FW:	458.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 247, 291, 362 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

WT161 is supplied as a crystalline solid. A stock solution may be made by dissolving the WT161 in the solvent of choice, which should be purged with an inert gas. WT161 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of WT161 in these solvents is approximately 10 mg/ml.

WT161 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, WT161 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. WT161 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

WT161 is a potent inhibitor of HDAC6 with an IC_{50} value of 0.40 nM.[1] It is selective for HDAC6 over HDAC3 (IC_{50} = 51.61 nM) and induces α-tubulin acetylation, an HDAC6-dependent process, with minimal effect on global lysine acetylation. WT161 inhibits growth of patient-derived multiple myeloma cell lines with IC_{50} values ranging from 1.5 to 4.7 µM. WT161 enhances the cytotoxicity of bortezomib (Item No. 10008822) and carfilzomib (Item No. 17554) against patient-derived multiple myeloma cells. It also decreases tumor size in a human MM.1S multiple myeloma mouse xenograft model when administered in combination with bortezomib at doses of 50 and 0.5 mg/kg, respectively.

Reference

1. Hideshima, T., Qi, J., Paranal, R.M., *et al.* Discovery of selective small-molecule HDAC6 inhibitor for overcoming proteasome inhibitor resistance in multiple myeloma. *Proc. Natl. Acad. Sci. USA* **113(46)**, 13162-13167 (2016).

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