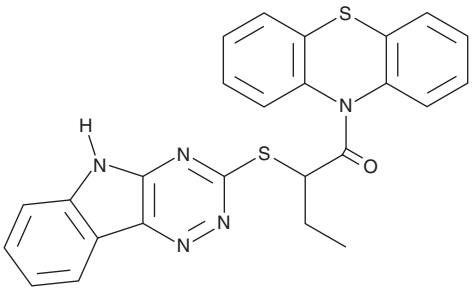
PRODUCT INFORMATION

Inauhzin

Item No. 19771

CAS Registry No.:	309271-94-1
Formal Name:	1-(10H-phenothiazin-10-yl)-2-(5H-1,2,4-triazino[5,6-b]indol-3-ylthio)-1-butanone
MF:	$C_{25}H_{19}N_5OS_2$
FW:	469.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 265 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

Inauhzin is supplied as a crystalline solid. A stock solution may be made by dissolving the inauhzin in the solvent of choice, which should be purged with an inert gas. Inauhzin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of inauhzin in these solvents is approximately 14 and 20 mg/ml, respectively.

Inauhzin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, inauhzin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Inauhzin has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Inauhzin is a cell-permeable, SIRT1 inhibitor (IC_{50} = 0.7-2 µM) that reactivates p53 by inhibiting SIRT1 deacetylation activity.[1] It binds directly to SIRT1 and does not affect SIRT2, SIRT3, or HDAC8.[1] Inauhzin has been shown to inhibit cell proliferation by inducing p53-dependent apoptosis in various human cancer cells (IC_{50}s = 5.4, 51.9, 3.2, 33.9, and 85.4 µM for H460, H1299, A549, HT-29, and WI38 cells, respectively), as well as in xenograft tumors derived from H460 cells.[1] It has also been shown to activate p53 synergistically with the Mdm2 inhibitor nutlin-3 (Item No. 10004372), sensitizing cancer cells to cisplatin (Item No. 13119) and doxorubicin (Item No. 15007).[2]

References

1. Zhang, Q., Zeng, S.X., Zhang, Y., *et al.* A small molecule Inauhzin inhibits SIRT1 activity and suppresses tumour growth through activation of p53. *EMBO Mol. Med.* **4(4)**, 298-312 (2012).
2. Zhang, Y., Zhang, Q., Zeng, S.X., *et al.* Inauhzin and Nutlin3 synergistically activate p53 and suppress tumor growth. *Cancer Biol. Ther.* **13(10)**, 915-924 (2012).

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