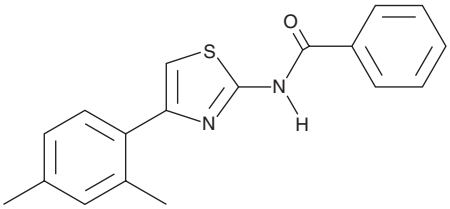
PRODUCT INFORMATION

INH1

Item No. 29015

CAS Registry No.:	313553-47-8
Formal Name:	N-[4-(2,4-dimethylphenyl)-2-thiazolyl]-benzamide
Synonym:	IBT 13131
MF:	$C_{18}H_{16}N_2OS$
FW:	308.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 235 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

INH1 is supplied as a crystalline solid. A stock solution may be made by dissolving the INH1 in the solvent of choice, which should be purged with an inert gas. INH1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of INH1 in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

INH1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, INH1 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. INH1 has a solubility of approximately 0.3 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

INH1 is an inhibitor of the interaction between the oncogene high expression in cancer 1 (Hec1) and its regulator, the serine/threonine kinase Nek2.[1] It binds to Hec1 and reduces Nek2 protein levels in HeLa cells when used at a concentration of 25 µM. INH1 inhibits the growth of MDA-MB-468, SK-BR-3, T47D, MDA-MB-361, ZR-75-1, HBL-100, MDA-MB-435, and Hs 578T breast cancer cells (GI_{50}s = 10.5-20.5 µM). It inhibits migration of MDA-MB-231 cells in a transwell migration assay (IC_{50} = 176 nM).[2] INH1 (50 and 100 mg/kg) reduces tumor growth in an MDA-MB-468 mouse xenograft model.[1]

References

1. Wu, G., Qiu, X.-L., Zhou, L., *et al.* Small molecule targeting the Hec1/Nek2 mitotic pathway suppresses tumor cell growth in culture and in animal. *Cancer Res.* **68(20)**, 8393-8399 (2008).
2. Zheng, S., Zhong, Q., Jiang, Q., *et al.* Discovery of a series of thiazole derivatives as novel inhibitors of metastatic cancer cell migration and invasion. *ACS Med. Chem. Lett.* **4(2)**, 191-196 (2013).

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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