

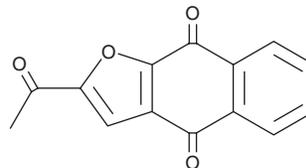
PRODUCT INFORMATION



Napabucasin

Item No. 22255

CAS Registry No.: 83280-65-3
Formal Name: 2-acetyl-naphtho[2,3-b]furan-4,9-dione
Synonym: BBI 608
MF: C₁₄H₈O₄
FW: 240.2
Purity: ≥98%
UV/Vis.: λ_{max}: 205, 253, 339 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

Napabucasin is supplied as a crystalline solid. A stock solution may be made by dissolving the napabucasin in the solvent of choice, which should be purged with an inert gas. Napabucasin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of napabucasin in ethanol is approximately 0.5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Description

Napabucasin is an inhibitor of cancer cell stemness.¹ It reduces growth in a panel of cancer cells enriched for high stemness (IC₅₀s = 0.291-1.249 μM) and decreases protein and gene expression of various self-renewal and pro-survival markers including Nanog, Smo, Axl, Atm, and Bmi-1 in a concentration-dependent manner in FaDu head and neck squamous cell carcinoma (HNSCC) cells. *In vivo*, napabucasin (20 mg/kg per day) inhibits tumor growth in a PaCa-2 mouse xenograft model and prevents tumor regrowth after cessation of treatment. It blocks formation of spleen and liver metastases in an HT29 intrasplenic nude mouse model system (ISMS) model. Napabucasin (40 mg/kg, i.p.) also reduces tumor volume in PC3 and 22RV1 prostate cancer mouse xenograft models.²

References

1. Li, Y., Rogoff, H.A., Keates, S.G., *et al.* Suppression of cancer relapse and metastasis by inhibiting cancer stemness. *Proc. Natl. Acad. Sci. USA* **112**(6), 1839-1844 (2015).
2. Zhang, Y., Jin, Z., Zhou, H., *et al.* Suppression of prostate cancer progression by cancer cell stemness inhibitor napabucasin. *Cancer Med.* **5**(6), 1251-1258 (2016).

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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