

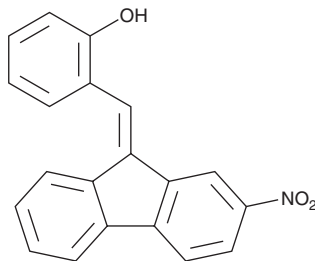
PRODUCT INFORMATION



SMBA1

Item No. 42247

CAS Registry No.: 906440-37-7
Formal Name: 2-[(2-nitro-9H-fluoren-9-ylidene)methyl]-phenol
Synonym: NSC 408730
MF: C₂₀H₁₃NO₃
FW: 315.3
Purity: ≥98%
Supplied as: A 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

SMBA1 is supplied as a solid. A stock solution may be made by dissolving the SMBA1 in the solvent of choice, which should be purged with an inert gas. SMBA1 is soluble (≥10 mg/ml) in DMSO and sparingly soluble (1-10 mg/ml) in ethanol.

Description

SMBA1 is an activator of Bax ($K_i = 43.3$ nM in a fluorescence polarization assay).¹ It selectively reduces viability in wild-type but not *Bax*^{-/-} mouse embryonic fibroblasts (MEFs) when used at a concentration of 25 μM. SMBA1 (5 μM) inhibits nicotine-induced increases in phosphorylated Bax levels in A549 lung cancer cells. It reduces viability in A549 cells when used at a concentration of 5 μM. SMBA1 (5, 10, or 15 μM) induces cell cycle arrest at the G₂/M phase in U87MG glioblastoma cells.² It disrupts the mitochondrial membrane potential in U87MG cells when used at a concentration of 15 μM. SMBA1 (5 or 10 μM) induces cytochrome c release from mitochondria and Bax insertion into mitochondrial membranes in A549 cells.¹ *In vivo*, SMBA1 (40 or 60 mg/kg per day) decreases tumor volume in an A549 mouse xenograft model.

References

- Xin, M., Li, R., Xie, M., *et al.* Small-molecule Bax agonists for cancer therapy. *Nat. Commun.* **5**, 4935 (2014).
- Fan, S., Xu, Q., Wang, L., *et al.* SMBA1, a Bax activator, induces cell cycle arrest and apoptosis in malignant glioma cells. *Pharmacology* **105**(3-4), 164-172 (2020).

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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