

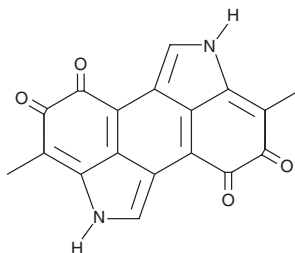
PRODUCT INFORMATION



Synthetic Melanin

Item No. 44132

CAS Registry No.: 8049-97-6
Formal Name: 3,8-dimethyl-2,7-dihydrobenzo[1,2,3-cd:4,5,6-c'd']diindole-4,5,9,10-tetraone
MF: $C_{18}H_{10}N_2O_4$
FW: 318.3
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

Synthetic melanin is supplied as a solid. A stock solution may be made by dissolving the synthetic melanin in the solvent of choice, which should be purged with an inert gas. Synthetic melanin is slightly soluble (0.1-1 mg/ml) in ethanol and sparingly soluble (1-10 mg/ml) in DMSO.

Description

Synthetic melanin is a synthetic derivative of the endogenous UV-absorbing compound melanin.¹ It inhibits IgE-induced RBL-2H3 mast cell degranulation ($IC_{50} = 39.8 \mu\text{g}/\mu\text{l}$). Lipid nanoparticles (LNPs) encapsulating synthetic melanin, in combination with radiation, reduce tumor volume without affecting body weight in a BxPC-3 pancreatic cancer mouse xenograft model.²

References

1. Kawamoto, Y., Kondo, H., Hasegawa, M., *et al.* Inhibition of mast cell degranulation by melanin. *Biochem. Pharmacol.* **163**, 178-193 (2019).
2. Wang, J., Chai, J., Liu, L., *et al.* Dual-functional melanin-based nanoliposomes for combined chemotherapy and photothermal therapy of pancreatic cancer. *RSC Adv.* **9**(6), 3012-3019 (2019).

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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