

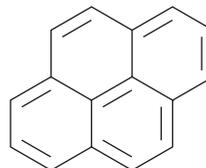
PRODUCT INFORMATION



Pyrene

Item No. 35168

CAS Registry No.: 129-00-0
Synonyms: Benzo[def]phenanthrene, NSC 17534,
NSC 66449
MF: C₁₆H₁₀
FW: 202.3
Purity: ≥98%
UV/Vis.: λ_{max}: 231, 240, 273, 319, 335 nm
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

Pyrene is supplied as a solid. A stock solution may be made by dissolving the pyrene in the solvent of choice, which should be purged with an inert gas. Pyrene is soluble in the organic solvent chloroform at a concentration of approximately 100 mg/ml.

Description

Pyrene is a polycyclic aromatic hydrocarbon (PAH).^{1,2} It has been found in sediments and fish in oil-contaminated mangroves and cigarette smoke. Pyrene inhibits the cytochrome P450 (CYP) isoforms CYP1A1, CYP1A2, and CYP1B1 (IC₅₀s = 41, 7, and 2 nM).³ It has been conjugated to phospholipids to facilitate the measurement of phospholipase A₂ (PLA₂) activity via fluorescence.⁴

References

1. Saunders, D., Carrillo, J.C., Gundlach, E.R., *et al.* Analysis of polycyclic aromatic hydrocarbons (PAHs) in surface sediments and edible aquatic species in an oil-contaminated mangrove ecosystem in Bodo, Niger Delta, Nigeria: Bioaccumulation and human health risk assessment. *Sci. Total Environ.* **832**, 154802 (2022).
2. Oyekunle, J.A.O., Afolabi, F.P., Adenuga, A.A., *et al.* Determination of levels of polycyclic aromatic hydrocarbons in the smoke fractions of popular cigarette brands commonly available in Nigeria. *Chem. Afr.* **5**, 201-210 (2022).
3. Shimada, T., Yamazaki, H., Foroozesh, M., *et al.* Selectivity of polycyclic inhibitors for human cytochrome P450s 1A1, 1A2, and 1B1. *Chem. Res. Toxicol.* **11(9)**, 1048-1056 (1998).
4. Radvanyi, F., Jordan, L., Russo-Marie, F., *et al.* A sensitive and continuous fluorometric assay for phospholipase A₂ using pyrene-labeled phospholipids in the presence of serum albumin. *Anal. Biochem.* **177(1)**, 103-109 (1989).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/12/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM