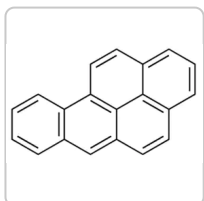


Type in Product Names, Product Numbers, or CAS Numbers to see suggestions.



[All Photos](#) (4)

Documents

[↓ SDS](#)

[🔍 COO/COA](#)

[📄 Specification Sheet](#)

[More Documents](#) »

B1760 ▶ **Sigma-Aldrich®**

Benzo[a]pyrene

★★★★★ (0)

≥96% (HPLC)

Synonym(s):

3,4-Benzopyrene, 3,4-Benzpyrene, Benzo[*def*]chrysene

Empirical Formula (Hill Notation):

C₂₀H₁₂

CAS Number: **50-32-8**

Molecular Weight: 252.31

Beilstein: 1911333

EC Number: **200-028-5**

MDL number: **MFCD00003602**

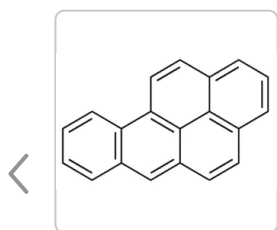
PubChem Substance ID: **24891610**

SKU	Pack Size	Availability	Price	Quantity	
B1760-100MG	100 MG	✓ Only 2 left in stock (more on the way) Details...	€67.20	- +	i
B1760-500MG	500 MG	✓ Only 1 left in stock (more on the way) Details...	€271.00	- +	i
B1760-1G	1 G	✓ Only 2 left in stock (more on the way) Details...	€467.00	- +	i
B1760-5G	5 G	✓ Only 1 left in stock (more on the way) Details...	€1,880.00	- +	i

[Request a Bulk Order](#)

[Add to Cart](#)

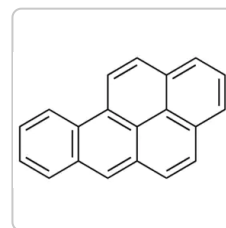
RECOMMENDED PRODUCTS



Supelco

48564**Benzo[a]pyrene**

analytical standard, for environmental analysis

[View Price and Availability](#)

Supelco

51968**Benzo[a]pyrene**certified reference material, *TraceCERT*®[View Price and Availability](#)

PROPERTIES

Quality Level

200

assay

≥96% (HPLC)

form

solid

bp

495 °C (lit.)

mp

177-180 °C (lit.)

SMILES string

c1ccc2c(c1)cc3ccc4cccc5ccc2c3c45

InChI	1S/C20H12/c1-2-7-17-15(4-1)12-16-9-8-13-5-3-6-14-10-11-18(17)20(16)19(13)14/h1-12H
-------	--

InChI key	FMMWHPNWAFZXNH-UHFFFAOYSA-N
-----------	-----------------------------

Looking for similar products? Visit [Product Comparison Guide](#)

DESCRIPTION

Application

Benzo[a]pyrene (PAH), a polycyclic aromatic hydrocarbon pollutant, is used as a chemical carcinogen in experimental models of cancer. Carcinogenesis depends on its oxidation by CYP1A1 to benzo[a]pyrenediolepoxide, that forms depurinating adducts with DNA that dissociate to form abasic lesions. Benzo[a]pyrene is a ligand for the arylhydrocarbon receptor (AhR), and some of its biological effects, including the induction of CYP1A1, appear to be mediated via activation of the AhR.

Packaging

100, 250, 500 mg in glass bottle

1, 5 g in glass bottle

RELATED PRODUCTS

Related Product

48564

Benzo[a]pyrene, analytical standard, for environmental analysis

[View Pricing](#)

SAFETY INFORMATION

Pictograms

**GHS07,GHS08,GHS09**

Signal Word

Danger

Hazard Statements

H317 - H340 - H350 - H360FD - H410

Precautionary Statements

P202 - P261 - P273 - P280 - P302 + P352 - P308 + P313

Hazard Classifications

Aquatic Acute 1 - Aquatic
Chronic 1 - Carc. 1B - Muta. 1B -
Repr. 1B - Skin Sens. 1

Storage Class Code

6.1C - Combustible, acute toxic
Cat.3 / toxic compounds or
compounds which causing
chronic effects

WGK

WGK 3

REGULATORY LISTINGS

Regulatory Listings are mainly provided for chemical products. Only limited information can be provided here for non-chemical products. No entry means none of the components are listed. It is the user's obligation to ensure the safe and legal use of the product.

EU REACH SVHC Candidate List

CAS No. **50-32-8**

EU REACH Annex XVII (Restriction List)

CAS No. **50-32-8**

DOCUMENTATION

Certificate of Analysis

Enter Lot Number to search for Certificate of Analysis (COA).

Lot Number

e.g. 023J5431

How to enter Lot Number (COA)

Search

Certificate of Origin

Enter Lot Number to search for Certificate of Origin (COO).

Lot Number

e.g. 023J5431

How to enter Lot Number (COO)

Search

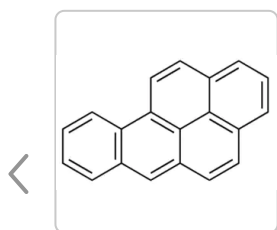
More Documents

FT-IR Condensed Phase

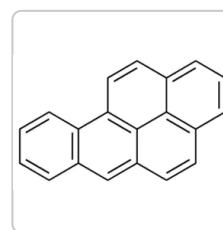
FT-NMR Spectra

[Pressure-Temperature Nomograph](#)[Spectra - ATR-IR](#)[Spectra for FT-IR Raman](#)[Structure Search](#)[SDS](#)

CUSTOMERS ALSO VIEWED



Supelco

CRM40071**Benzo[a]pyrene solution**certified reference material, *TraceCERT*[®], 1000 µg/mL in acetone[View Price and Availability](#)

Supelco

CRM48665**Benzo[a]pyrene solution**certified reference material, *TraceCERT*[®], 200 µg/mL in methylene chloride[View Price and Availability](#)

PEER REVIEWED PAPERS

[Integrated Hypoxia Signaling and Oxidative Stress in Developmental Neurotoxicity of Benzo\[a\]Pyrene in Zebrafish Embryos.](#)

Yi-Chen Lin et al.*Antioxidants (Basel, Switzerland)*, 9(8) (2020-08-17)

Benzo[a]pyrene (B[a]P) is a polycyclic aromatic hydrocarbon formed by the incomplete combustion of organic matter. Environmental B[a]P contamination poses a serious health risk to many organisms because the pollutant may negatively affect many physiological systems. As such, chronic exposure to

Resveratrol, a natural aryl hydrocarbon receptor antagonist, protects lung from DNA damage and apoptosis caused by benzo[a]pyrene.

Ariel Revel et al.

Journal of applied toxicology : JAT, 23(4), 255-261 (2003-07-29)

Benzo[a]pyrene (BaP) is an agonistic ligand for the aryl hydrocarbon receptor (AhR) and a major environmental carcinogen implicated in the aetiology of lung cancer through the induction of benzo[a]pyrene diol epoxidation (BPDE) and BPDE-DNA adducts. Because BaP metabolism requires cytochrome

Antagonistic Interactions between Benzo[a]pyrene and Fullerene (C60) in Toxicological Response of Marine Mussels.

Audrey Barranger et al.

Nanomaterials (Basel, Switzerland), 9(7) (2019-07-11)

This study aimed to assess the ecotoxicological effects of the interaction of fullerene (C60) and benzo[a]pyrene (B[a]P) on the marine mussel, *Mytilus galloprovincialis*. The uptake of nC60, B[a]P and mixtures of nC60 and B[a]P into tissues was confirmed by Gas

beta-Naphthoflavone analogs as potent and soluble aryl hydrocarbon receptor agonists: improvement of solubility by disruption of molecular planarity.

Yuji Fujita et al.

Bioorganic & medicinal chemistry, 18(3), 1194-1203 (2010-01-12)

The physiological role of aryl hydrocarbon receptor (AhR) is not yet fully understood, and investigation is hampered by the limited solubility of reported AhR ligands in aqueous media. To achieve improved solubility, we focused on our previous finding that planarity-disruption

Systematic identification of CDC34 that functions to stabilize EGFR and promote lung carcinogenesis.

Xin-Chun Zhao et al.

EBioMedicine, 53, 102689-102689 (2020-03-03)

How the oncoprotein epidermal growth factor receptor (EGFR) evades proteolytic degradation and accumulates in non-small cell lung cancer (NSCLC) remains unclear, and ubiquitin pathway genes (UPGs) that are critical to NSCLC needs to be systematically identified. A total of 696

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PROTOCOLS AND ARTICLES

Articles

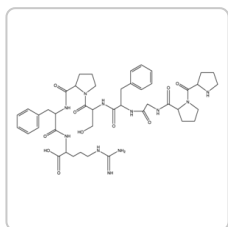
DNA Damage and Repair

DNA damage and repair mechanism is vital for maintaining DNA integrity. Damage to cellular DNA is involved in mutagenesis, the development of cancer among others.

Carcinogenesis and Epigenetics

Cancer research has revealed that the classical model of carcinogenesis, a three step process consisting of initiation, promotion, and progression, is not complete.

RECENTLY VIEWED PRODUCTS



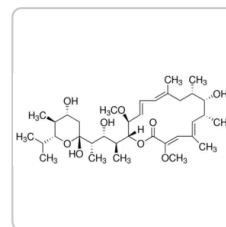
Sigma-Aldrich

B1901

Bradykinin Fragment 2-9

≥97% (HPLC)

[View Price and Availability](#)



Sigma-Aldrich

B1793

Bafilomycin A1 from *Streptomyces griseus*

≥90% (HPLC)

[View Price and Availability](#)

Reviews



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