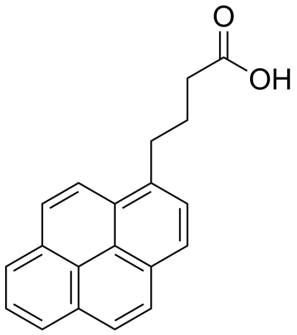
1-Pyrenebutyric acid

Cat. No.:	HY-W103047
CAS No.:	3443-45-6
Molecular Formula:	$C_{20}H_{16}O_2$
Molecular Weight:	288.34
Target:	Fluorescent Dye
Pathway:	Others
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (346.81 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.4681 mL	17.3406 mL	34.6813 mL
	5 mM	0.6936 mL	3.4681 mL	6.9363 mL
	10 mM	0.3468 mL	1.7341 mL	3.4681 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (8.67 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

1-Pyrenebutyric acid is a fluorescence probe that can be used in fluorescence determination of DNA. 1-Pyrenebutyric acid can be used as a linker for biomolecules to form a self-assembled monolayer on grapheme[1].

REFERENCES

[1]. Wang L, et, al. Fluorescence determination of DNA with 1-pyrenebutyric acid nanoparticles coated with beta-cyclodextrin as a fluorescence probe. Spectrochim Acta A Mol Biomol Spectrosc. 2005 Apr;61(6):1201-5.

[2]. Hinnemo M, et, al. On Monolayer Formation of Pyrenebutyric Acid on Graphene. Langmuir. 2017 Apr 18;33(15):3588-3593.

Caution: Product has not been fully validated for medical applications. For research use only.

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