Naphthoresorcinol

Cat. No.: HY-D0165

CAS No.: 132-86-5

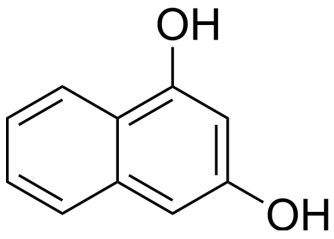
Molecular Formula: $C_{10}H_8O_2$

Molecular Weight: 160.17

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 (624.34 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	6.2434 mL	31.2168 mL	62.4337 mL
	5 mM	1.2487 mL	6.2434 mL	12.4867 mL
	10 mM	0.6243 mL	3.1217 mL	6.2434 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 (15.61 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (15.61 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Naphthoresorcinol (1,3-Dihydroxynaphthalene) is a fluorescent dye (λ_{ex}=330 nm, λ_{em}=380 nm) that can react with the NPPD (a tracer) and concentrated HCl and develop a red color. Naphthoresorcinol could be used as a background electrolyte (BGE) to determine the carbohydrates[1][2][3].

REFERENCES

[1]. Vyas S, et, al. Fluorescence and light scattering studies on the interaction of 1,3-dihydroxynaphthalene with ionic and non-ionic surfactants. Polymer Photochemistry. 1984; 4(4):245-253.

[2]. Suzuki S, et, al. Development of a field kit for use by non-scientists for chemical tracking using 5-(4-nitrophenyl)-2,4-pentadien-1-al. Forensic Sci Int. 2013 May 10;228(1-3):e25-7.

[3]. Lee YH, et, al. Determination of carbohydrates by high-performance capillary electrophoresis with indirect absorbance detection. J Chromatogr B Biomed Appl. 1996 May 31;681(1):87-97.

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