2-Di-1-ASP

Cat. No.: HY-135009

CAS No.: 2156-29-8

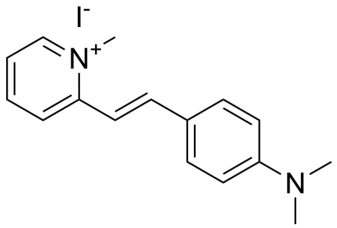
Molecular Formula: $C_{16}H_{19}IN_2$

Molecular Weight: 366.24

Target: G-quadruplex

Pathway: Cell Cycle/DNA Damage

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (68.26 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7304 mL	13.6523 mL	27.3045 mL
	5 mM	0.5461 mL	2.7304 mL	5.4609 mL
	10 mM	0.2730 mL	1.3652 mL	2.7304 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: ≥ 2.08 mg/mL (5.68 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.68 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

2-Di-1-ASP (DASPI; Compound 18a) is a mono-stryryl dye, and widely used as mitochondrial stain and groove-binding fluorescent probes for double-stranded DNA. 2-Di-1-ASP is selective for G-quadruplex (G4) and double-stranded DNA[1].

In Vitro

2-Di-1-ASP (Compound 18a) displays significant fluorescence enhancements in the presence of G-quadruplex (G4) structures (up to 300-fold), and good selectivity with respect to double-stranded DNA. 2-Di-1-ASP shows fluorimetric selectivity for parallel G4-DNA forms (c-kit2, c-kit87up, c-myc)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Xie X, et al. Identification of optimal fluorescent probes for G-quadruplex nucleic acids through systematic exploration of mono- and distyryl dye libraries. Beilstein J Org Chem. 2019 Aug 6;15:1872-1889.

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