Product Data Sheet

CY5-SE triethylamine salt

Cat. No.: HY-D0819A CAS No.: 1497420-70-8

Molecular Formula: $C_{43}H_{58}N_4O_{10}S_2$

Molecular Weight: 855.07

Target: Fluorescent Dye

Pathway: Others

Storage: -20°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: 125 mg/mL (146.19 mM; Need ultrasonic)

 $H_2O : \ge 5.88 \text{ mg/mL } (6.88 \text{ mM})$

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.1695 mL	5.8475 mL	11.6949 mL
	5 mM	0.2339 mL	1.1695 mL	2.3390 mL
	10 mM	0.1169 mL	0.5847 mL	1.1695 mL

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

In Vivo

- 1. Add each solvent one by one: Saline Solubility: 25 mg/mL (29.24 mM); Clear solution; Need ultrasonic and warming and heat to 60°C
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (2.43 mM); Clear solution

BIOLOGICAL ACTIVITY

Description Cy5-SE (Cy5 NHS Ester) triethylamine salt is a reactive dye for the labeling of amino-groups in peptides, proteins, and oligonucleotides. Cy5-SE triethylamine salt is ideal for very cost-efficient labeling of soluble proteins, as well as all kinds of

peptides and oligonucleotides Ex=649 nm; Em=670 nm)^[1].

In Vitro Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified

according to your specific needs).

?Conjugation of SELP Analogues with Cy5-SE.

?1. 1 mL of each 100 μ g/mL SELP solution in 100 mM sodium bicarbonate buffer (pH 8.3) is mixed with 10 μ L of 1.2 mg/mL

Cy5 mono NHS-ester in 10% DMSO and incubates for 2 hours on ice.

- ?2. To quench the reaction, 50 μL of 1 M Tris-HCl (pH 8.0) is added to the reaction solution.
- ?3. Reaction mixtures are loaded onto 1.5 mL Sephadex G-25 columns, and Cy5-conjugated SELPs are eluted by centrifugation for 3 minutes at $1050g^{[1]}$.

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

CUSTOMER VALIDATION

- Adv Sci (Weinh). 2023 Jun 25;e2301592.
- J Nanobiotechnology. 2018 Mar 16;16(1):23.
- Nano Res. 29 June 2021.
- ACS Appl Mater Interfaces. 2019 Jan 16;11(2):1766-1781.
- Carbohyd Polym. 2020 May 1;235:115983.

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REFERENCES

[1]. Jeon HY, et al. Array-Based High-Throughput Analysis of Silk-Elastinlike Protein Polymer Degradation and C-Peptide Release by Proteases. Anal Chem. 2016;88(10):5398-5405.

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

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