

# **Certificate of Analysis**

Print Date: May 18th 2022

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Product Name: Cyanine 5 Tyramide Catalog No.: 6458 Batch No.: 1

CAS Number: 1431148-26-3

IUPAC Name: 2-[5-[1,3-Dihydro-1-[6-[[(2-(4-hydroxyphenyl)ethyl]amino-6-oxohexyl]3,3-dimethyl-5-sulfo-2*H*-indol-2-ylidene]

-1,3-pentadien-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indolium inner salt

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{41}H_{49}N_3O_8S_2$ 

Batch Molecular Weight: 775.97

Physical Appearance:

Solubility:

Dark blue solid

DMSO to 15 mM

Storage:

Store at -20°C

**Batch Molecular Structure:** 

## 2. ANALYTICAL DATA

**HPLC:** Shows 98.8% purity

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

 $\lambda_{max}$ : 648 nm ( )  $\lambda_{ex}$ : 651 nm  $\lambda_{em}$ : 665 nm

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use



## **Product Information**

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#### **Description:**

Cyanine 5 Tyramide is a red fluorescent reagent widely used for tyramide signal amplification (TSA) in IHC, ICC, FISH and multicolor FISH. HRP catalyzes localized deposition of multiple tyramide molecules (catalyzed reporter deposition, CARD), binding the fluorescein tyramide to adjacent tyrosines to enhance fluorescent signal.

### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>41</sub>H<sub>49</sub>N<sub>3</sub>O<sub>8</sub>S<sub>2</sub>

Batch Molecular Weight: 775.97 Physical Appearance: Dark blue solid

## **Minimum Purity:** ≥95%

## **Batch Molecular Structure:**

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

## Solubility & Usage Info:

DMSO to 15 mM

## Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

#### References:

Chanda et al (2017) Identification of the SUMO E3 ligase PIAS1 as a potential survival biomarker in breast cancer. PLoS One 12 e0177639. PMID: 28493978.

Matsumoto et al (2017) Aldehyde dehydrogenase 1B1: a novel immunohistological marker for colorectal cancer. Br.J.Cancer 117 1537. PMID: 28881356.

Wong et al (2001) Identification of differentially expressed genes from ovarian cancer cells by MICROMAX cDNA microarray system. Biotechniques 30 670. PMID: 11252802.

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