

FT-HO7250



CY_{anine} Azide

CY_{anine} fluorophores for labeling biomolecules

Introduction

A variety of **Cyanine dyes** has been used to label proteins, nucleic acids and other biomolecules for fluorescence techniques (imaging, biochemical analysis). They replace advantageously the conventional fluorochromes such as Fluorescein(FITC) and rhodamines (TRITC, RRR).

CY_{anine}3 can replace orange-fluorescent dyes, like Tetramethylrhodamine (TRITC), AF546, DL749.

CY_{anine}3 is one of the most broadly used fluorophores which can be detected by various fluorometers, imagers, and microscopes. Due to inherently high extinction coefficient, this dye is also easily detected by naked eye on gels, and in solution. See also alternative superior dye: [FluoProbes547H](#).

CY_{anine}3.5 can replace SulfoRhodamine 101.

See also alternative superior dye: [FluoProbes594](#).

CY_{anine}5 can replace far red red fluorescent dyes.

During last years, CY_{anine}5 fluorophore has become an incredibly popular label in life science research and diagnostics. Fluorophore emission has maximum in red region, where many CCD detectors have maximum sensitivity, and biological objects have low background. Dye color is very intense, therefore quantity as small as 1 nanomol can be detected in gel electrophoresis by naked eye. See also alternative superior dye: [FluoProbes647H](#)

CY_{anine}5.5 can replace near infrared fluorescent dyes.

See also alternative superior dye: [FluoProbes682](#).

CY_{anine}7 is a near infrared red fluorophores used in *in vivo* imaging applications.

See also alternative superior dye: [FluoProbes752](#).

CY_{anine}7.5 is a near infrared red fluorophores used for *in vivo* imaging applications.

See also alternative superior dye: [FluoProbes800](#).

Sulfo – CY_{anine} dyes are water-soluble form of the CY_{anine} dyes. DiSulfonated forms are the most classic, but some tri- and tetra-sulfonated forms are available as well, for even higher hydrosolubility.

Products Description

The table below gives main physical and fluorescence characteristics of the activated dyes

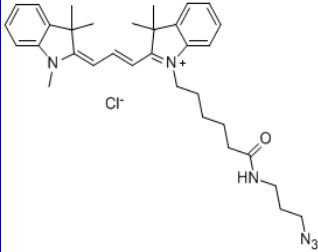
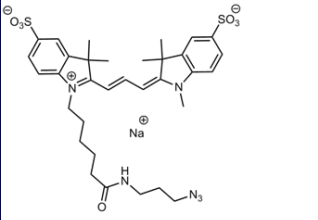
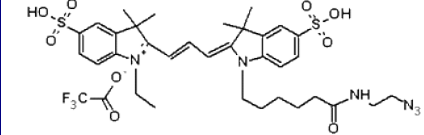
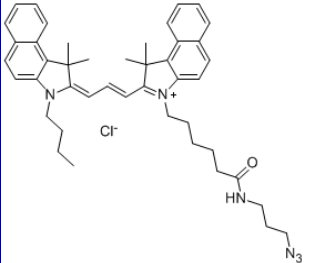
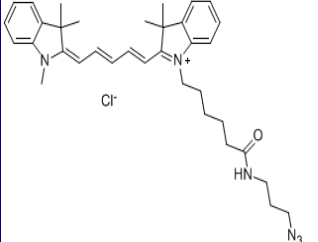
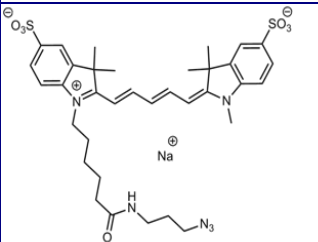
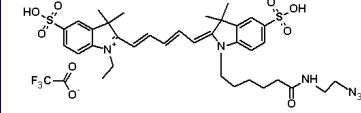
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interchim

 211 bis, avenue JF Kennedy
 BP 1140 - 03100 Montluçon
 Fax +33 4 70 03 82 60

 ■ Hotline +33 4 70 03 73 06 • interbiotech@interchim.com ■

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Product name cat.number/qty*	MW g·mol ⁻¹ (+added MW)	λ abs./em. nm	mol. abs. M ⁻¹ cm ⁻¹	Comment, structure
CY_{anine3} – Azide (M) FP-HO7250, 1mg EV0900, 100µl 10mM in DMSO Dark red powder Soluble in organic solvents (DMF, DMSO, dichloromethane), insoluble in water	575.19 (539.7)	555 / 570	150 000 QY: 0.31	
DiSulfo-CY_{anine3} – Azide, Na salt (M) FP-KV5730, 1mg Soluble in water and polar organic solvent (DMF, DMSO), insoluble in organic solvents (DCM, chloroform) (M)	720.84 (Na salt)	548 / 567	162 000 QY: 0.18 CF ₂₆₀ : 0.03 CF ₂₈₀ : 0.06	
DiSulfo-CY_{anine3} - Azide, TFA salt (M) FP-LQV020, 1mg	812.88	555 / 565		
CY_{anine3.5} – Azide (M) FP-CY3AZ0, 1mg FZ8760, 100µl 10mM in DMSO Dark blue powder or solution	717.38 (681.9)	591 / 604	116 000 QY: 0.35	
CY_{anine5} – Azide (M) FP-CY5AZ0, 1mg EV0910, 100µl 10mM in DMSO dark blue powder / solution Soluble in DMSO, DMF, dichloromethane (low solubility in water)	601.22 (565.8)	646 / 662	250 000 QY: 0.2	
DiSulfo-CY_{anine5} – Azide (M) FP-JV6320, 1mg Soluble in water and polar organic solvent (DMF, DMSO), insoluble in organic solvents (DCM, chloroform)	746.87 (Na salt)	646 / 664	271 000 QY: 0.28	
DiSulfo-CY_{anine5} – Azide , TFA salt (M) FP-LQV080, 1mg	838.91	649 / 665		

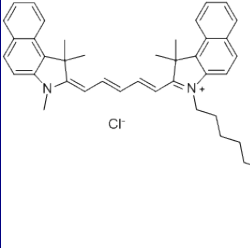
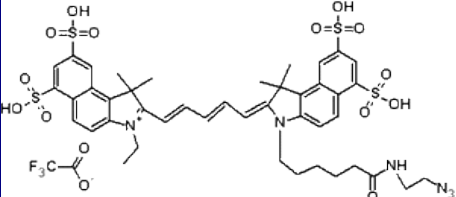
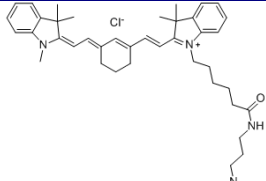
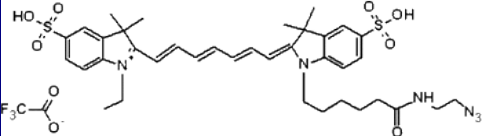
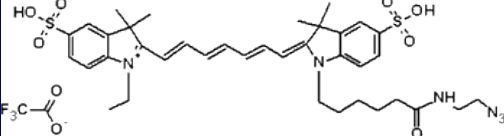
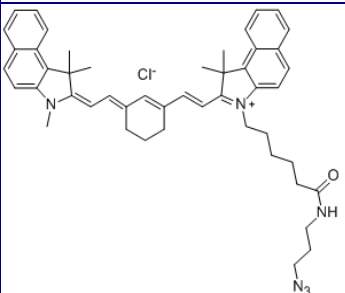
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Product name cat.number/qty*	MW g·mol ⁻¹ (+added MW)	λ abs./em. nm	mol. abs. M ⁻¹ cm ⁻¹	Comment, structure
CY_{anine5.5} – Azide (M) FP-GO7260, 1mg FZ8770, 100µl 10mM in DMSO		674 / 707	209 000 QY: 0.2	
Tetra-Sulfo-CY_{anine5.5} – Azide, TFA salt (M) FP-LQV310, 1mg	1099.17	678 / 701		 (bears 4 Sulfo, 1 Ethyl)
Tetra-Sulfo-CY_{anine5.5} – Azide, K salt (M) FP-OB8430, 1mg	-	“	“	
CY_{anine7} – Azide, Na salt (M) FP-1A6270, 1mg FP-1A6260, 100µl 10mM in DMSO	667.33	750 / 773	“	soluble in organic solvents (DMSO, DMF, dichloromethane), low solubility in water 
CY_{anine7} – Azide, TFA salt (M) FP-LQV240, 1mg	864.95	749/776		
DiSulfo-CY_{anine7} – Azide, TFA salt (M) FP-LQV240, 1mg	864.95	749 / 776		 (bears 2 Sulfo, 1 Ethyl)
CY_{anine7.5} – Azide (M) FP-1A6310, 1mg FP-1A6300, 100µL 10mM in DMSC Soluble in organic solvents (DMSO, DMF, dichloromethane), low solubility in water	767.44	788 / 808	223 000	

Storage: -20°C, protected from light (M)

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Related products

* Other CY_{anine} dyes functionalized by **NHS** ([BB7493](#)), **Maleimide** ([JO6660](#)), **Azide** ([HO7250](#)), **Alkyne** ([1A6320](#)), **Hydrazide** ([LQV050](#)), **DBCO** ([DQP790](#): CycloAlkynes, for strain-promoted Click reactions), **Amino** group ([CY3AM0](#)), **Carboxyl** group ([CY3CA0](#)). **3Dye 2D DIGE** (CY_{anine2}/CY_{anine3}/CY_{anine5}) **labeling kit** ([EV0870](#))

* Related labels: Superior **FluoProbes fluorescent dyes**

- activated by –NHS ([list](#)), i.e. FP488-NHS #[BA68000](#)

- activated by –Azide, i.e. FP488-Azide #[YE4970](#)

*CY_{anine}-labeled probes

• **Labeled lectins**, i.e. ConA-CY_{anine3} #FT-WT868.

• **Labeled secondary antibodies**

• **Labeled tags**, i.e. CY_{anine3}-polylysine #FT-WT8550

Ordering information

Catalog size quantities and prices may be found at www.interchim.com/. Please inquire for bigger quantities and for any information, please ask : FluoProbes® / Interchim; Hotline : +33(0)4 70 03 73 06

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