



Biosolve  
B

## Biosolve syntheses

# 2010



Distributed by:

**Greyhound Chromatography and Allied Chemicals**

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Email: [sales@greyhoundchrom.com](mailto:sales@greyhoundchrom.com)

[www.greyhoundchrom.com](http://www.greyhoundchrom.com)

**Biosolve** produces and distributes high purity fine organic chemicals from gram to multi kilo scale.

Biosolve has developed unique and proprietary routes to demanded molecules useful in R&D or production in industry.

Biosolve takes advantage of its highly trained chemists team which includes Ph.D's, chemical engineers and technicians and has access to most of the analytical techniques which ensure the purity and identity of the molecules produced.

Multi steps syntheses follow established manufacture master files (MMF) enabling batch reproducibility and easy scaling-up when needed. Such special features as bacterial/endotoxins control of the molecules demanded, can be dealt with on request.

Being in the production and marketing of chemicals for over 30 years, we are well acquainted with the dispatching procedures and cumbersome regulation paper work accompanying such activity.

Please keep in mind that we offer synthetic/formulations/packaging custom services as well.

We always deal with your demands and orders in total confidentiality.

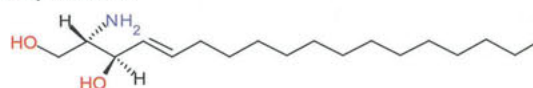
Do not hesitate to request a meeting with one of our representatives.

In the partial listing hereunder, you will find a resume of the high purity molecules already available from Biosolve.

## Synthetic lipids

### D-erythro-Sphingosines

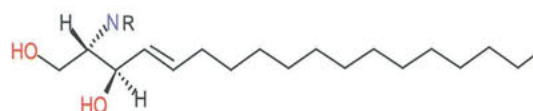
Purity: 98-99%



C15 to C22

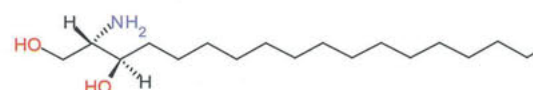
### Dimethyl/Trimethyl-D-erythro Sphingosine

R=(CH<sub>3</sub>)<sub>2</sub>, (CH<sub>3</sub>)<sub>3</sub>

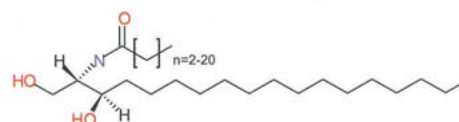


### D-erythro-Dihydrosphingosines

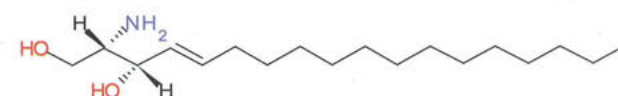
(D-Sphinganine)



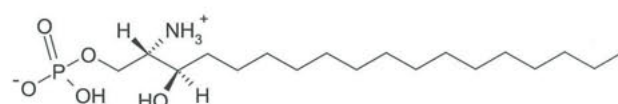
### Ceramides N-C2 to N-C20, N-oleoyl etc



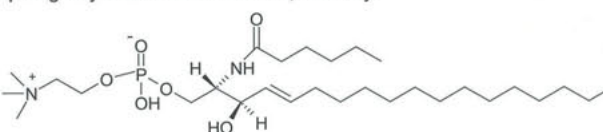
### L-threo-Sphingosines and ceramides



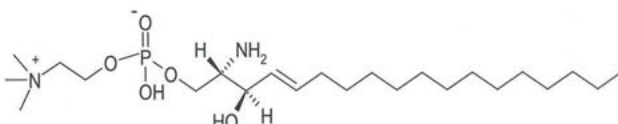
### Sphingosine-1-phosphate



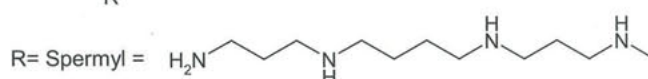
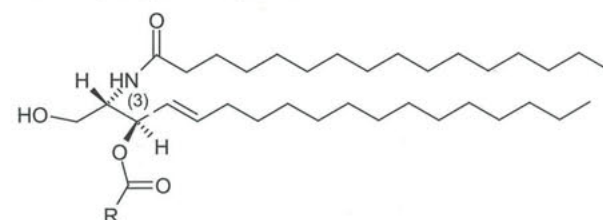
### Sphingomyelins N-C6 to N-C18, N-oleoyl



### Lysosphingomyelins



### Ceramide sphingosine-1-spermine

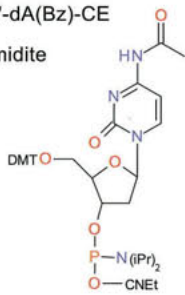


# DNA building blocks phosphoramidites

Purity >99%

5'-O-DMT-2'-dA(Bz)-CE

Phosphoramidite



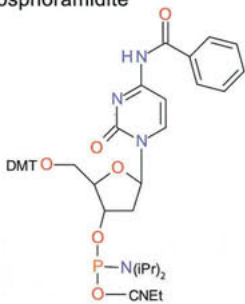
5'-O-DMT-2'-dC(Ac)-CE

Phosphoramidite



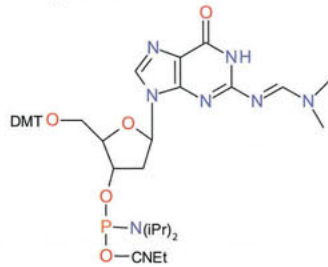
5'-O-DMT-2'-dC(Bz)-CE

Phosphoramidite



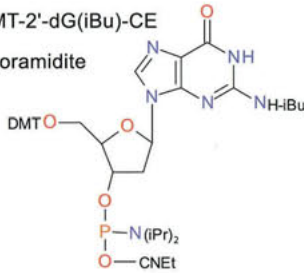
5'-O-DMT-2'-dG(dmf)-CE

Phosphoramidite



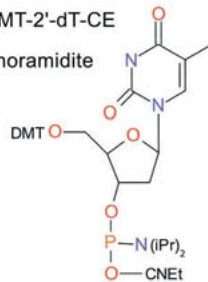
5'-O-DMT-2'-dG(iBu)-CE

Phosphoramidite



5'-O-DMT-2'-dT-CE

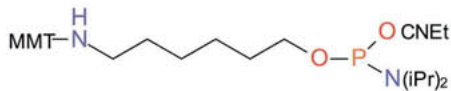
Phosphoramidite



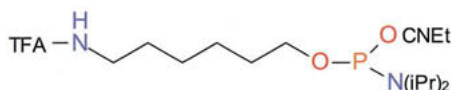
# Spacers and Modifiers for DNA and RNA synthesis

## 5'-Amino-Modifiers

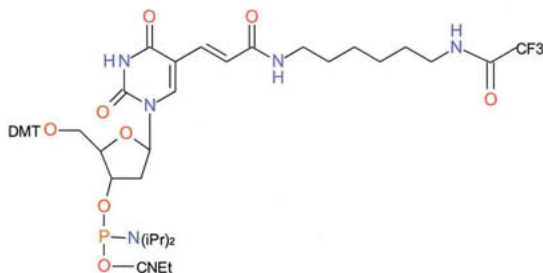
5'-Amino-modifier C6



5'-Amino-modifier C6 TFA

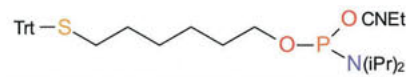


5'-Amino-modifier C6 dT

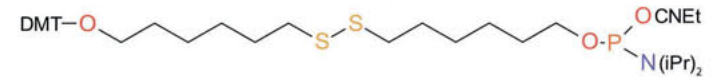


## 5'-Thiol-Modifiers

5'-Thiol-modifier C6

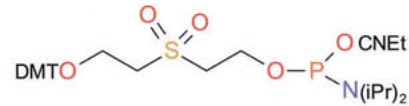


5'-Thiol-modifier C6 S-S

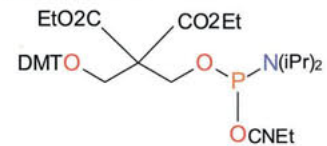


## 5'-Phosphorylating Modifiers

5-Phosphate amidite; CPR-I

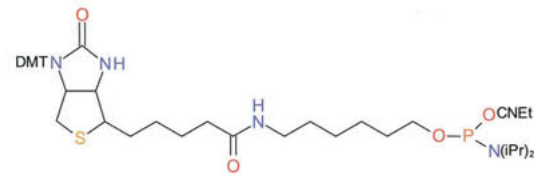


5'-Phosphorylating reagent II; CPR-II

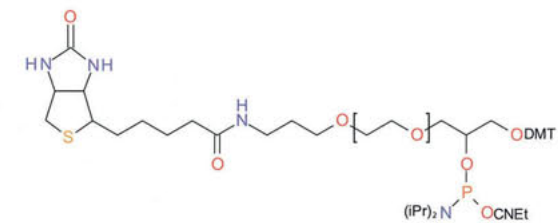


## Biotin Labelling

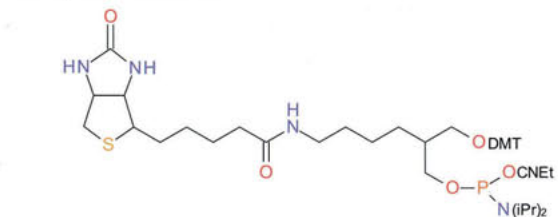
5'-Biotin phosphoramidite



Biotin-TEG phosphoramidite



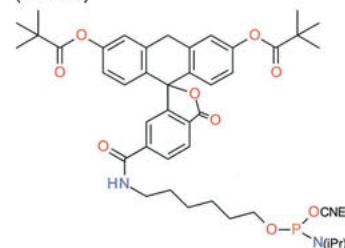
Biotin phosphoramidite



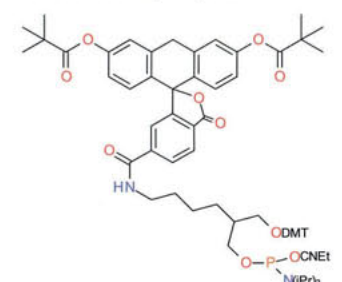
## 5'-Fluorescein Amidites

5'-Fluorescein phosphoramidite

(6-FAM)



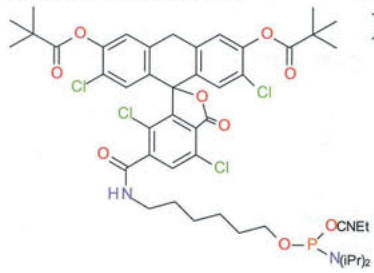
6-Fluorescein phosphoramidite



## TET and HEX Amidites

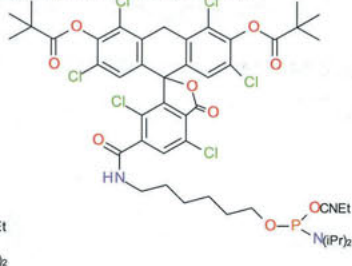
5'-Tetrachloro-fluorescein

phosphoramidite (6-TET)



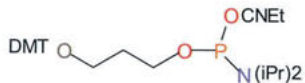
5'-Hexachloro-fluorescein

phosphoramidite (6-HEX)

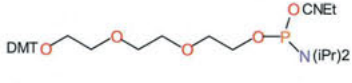


## Spacer Modifiers

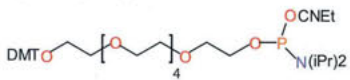
Spacer phosphoramidite C3



Spacer phosphoramidite C9



Spacer phosphoramidite C18



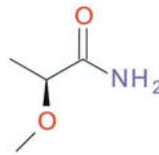
dSpacer



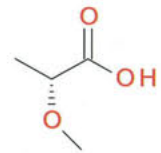
## Cyanine phosphoramidites

## 'Chiral solvents' synthons

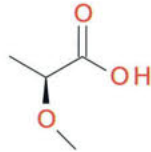
(S)-(-)-2-Methoxypropionamide



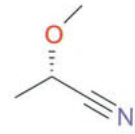
(R)-(+)-2-Methoxypropionic acid



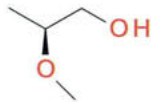
(S)-(-)-2-Methoxypropionic acid



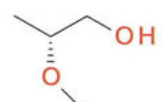
(S)-(-)-2-Methoxypropionitrile



(S)-(+)-2-Methoxy-1-Propanol

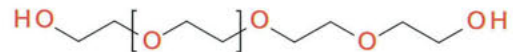


(R)-(-)-1-Methoxy-2-Propanol



## Discrete molecular weight activated PEG reagent

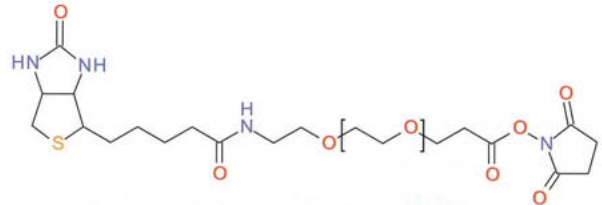
PEGs 4, 12, 24, 36, 48



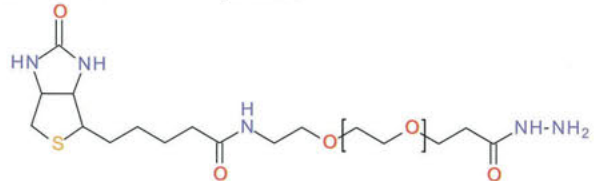
mPEGs 3, 7, 11, 23, 35, 47



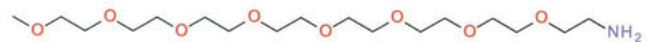
Biotin-PEG4 to PEG48 NHS



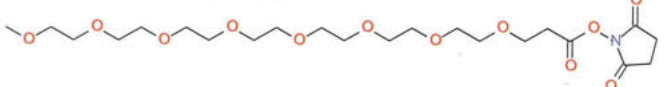
Biotin-PEG4 to PEG48 Hydrazide



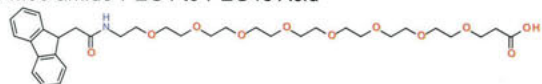
mPEG3 to mPEG47 Amine



mPEG3 to mPEG47 NHS ester

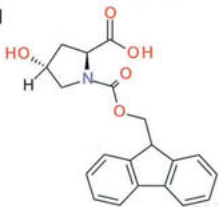


Fmoc-amido-PEG4 to PEG48 Acid

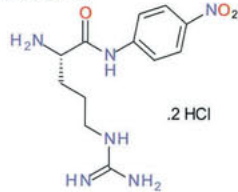


## Protected amino-acids building blocks

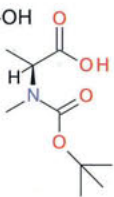
FMoc-Hyp-OH



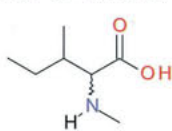
L-Arg-pNA . 2HCl



BOC-N-Me-L-Ala-OH



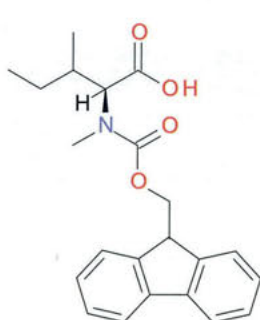
N-Me-Ile-OH . HCl



Z-N-Me-Ile-OH

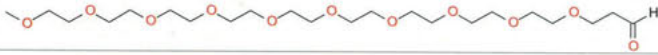


FMoc-N-Me-Leu-OH



etc...

mPEG3 to mPEG47 Propionaldehyde



Boc-amido-PEG4 to PEG48 Acid

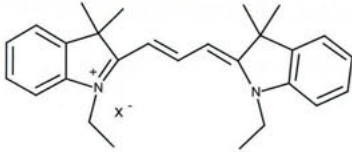


Biotin-PEG4 to PEG48 PFP ester

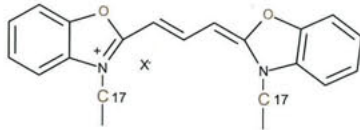


## Dyes

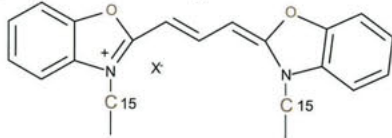
Cy(3) bis(Ind, N-ethyl)



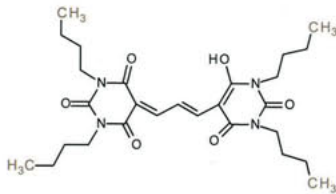
Cy(3) bis(Oxa N-octadecyl)



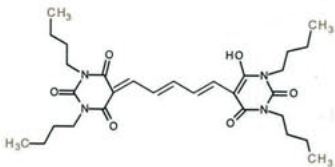
Cy(3) bis(Oxa N-hexadecyl)



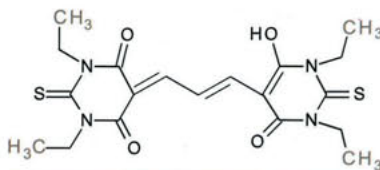
Oxonol (3) bis(dibutyl BA), [DiBAC4(3)]



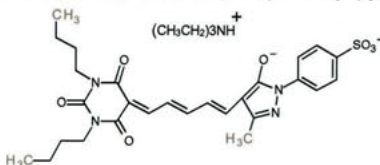
Oxonol (5) bis(dibutyl)BA, [DiBAC4(5)]



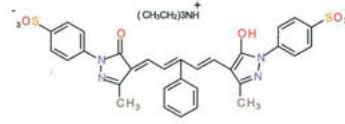
Oxonol (3) bis(diethyl) TBA, [DiSBAC2(3)]



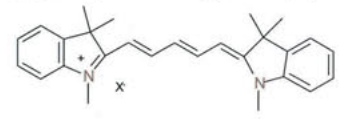
Oxonol (5) dibutylBA, sulfophenyl methyl pyrazolone (www781)



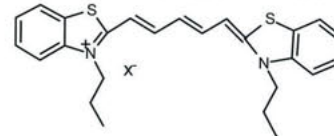
Oxonol, RH-155 triethylammonium salt



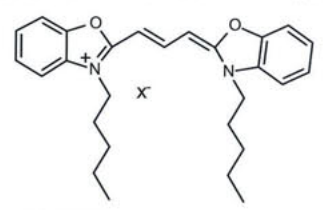
Cy(5), bis(Ind N-methyl), DiIC1(5)



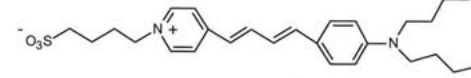
Cy(5) bis(Thia N-propyl), diISC3(5)



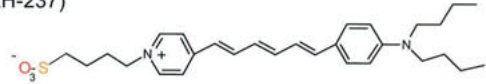
Cy(3) bis(Oxa N-pentyl), diOC5(3)



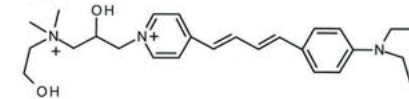
Styryl, N-(4-Sulfobutyl)-4-(4-(4-(dibutylamino)phenyl)butadienyl)pyridinium, inner salt, (RH-160)



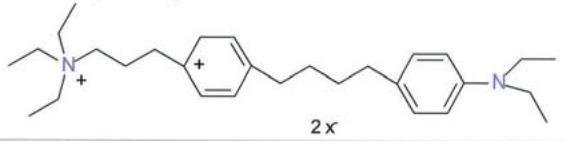
Styryl, N-(4-Sulfobutyl)-4-(4-(4-(dibutylamino)phenyl)hexatrienyl)pyridinium, inner salt, (RH-237)



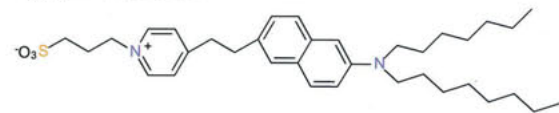
Styryl, RH-795



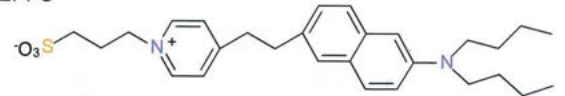
Styryl, N-(3-triethylammoniumpropyl)-4-(4-(4-diethylaminophenyl)butadienyl)pyridinium diBromide, (RH 414)



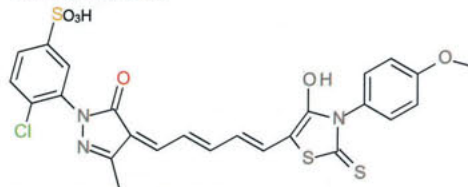
Styryl, Di-8-ANEPPS



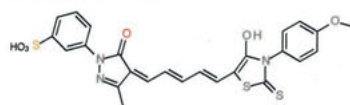
Styryl Di-4-ANEPPS



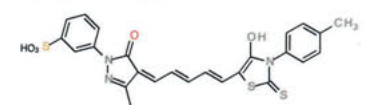
Oxonol RH-1691



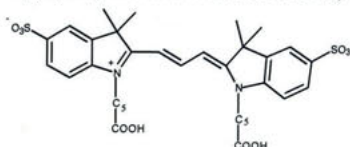
Oxonol RH-1692



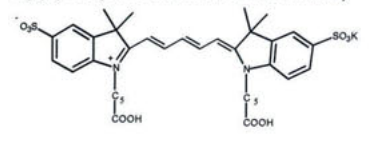
Oxonol RH-1838



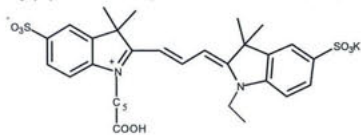
Cy(3) bis(sulfo Ind N-hexanoic acid)



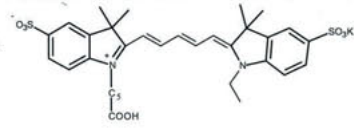
Cy(5) bis(sulfo Ind N-hexanoic acid)



Cy(3) Ind N-ethyl N'-hexanoic acid

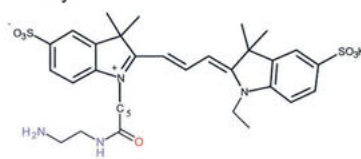


Cy(5) Ind N-ethyl, N'-hexanoic acid

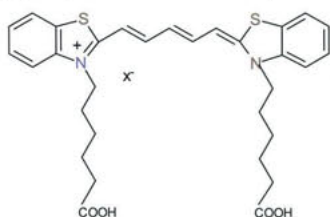


Cy(3) Ind N-ethyl,

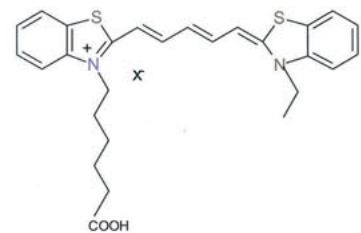
N'-ethylenediamine amide



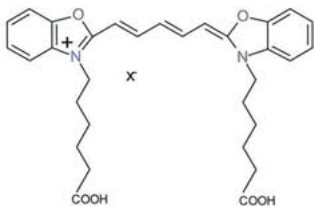
Cy(5) bis(Thia N-hexanoic acid)



Cy(5) (Thia N-ethyl, N'-hexanoic acid)

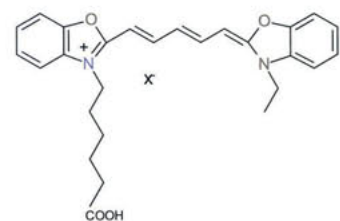


Cy(5) bis(Oxa N-hexanoic acid)

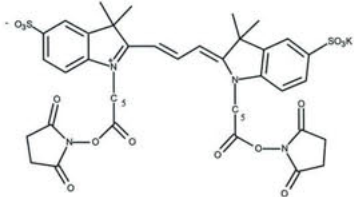


Cy(5) Oxa N-ethyl

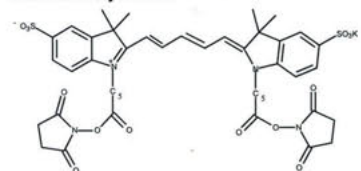
N'-hexanoic acid



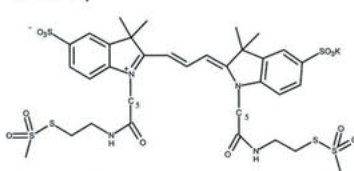
Cy(3) bis(sulfo Ind N-hexanoic acid, succinimidyl ester)



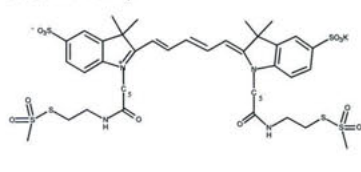
Cy(5) bis(sulfo Ind N-hexanoic acid, succinimidyl ester)



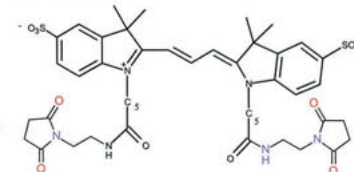
Cy(3) bis (sulfo Ind N-hexanoic acid-MTSEA)



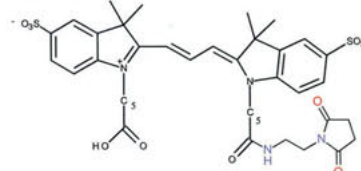
Cy(5) bis(sulfo Ind N-hexanoic acid-MTSEA)



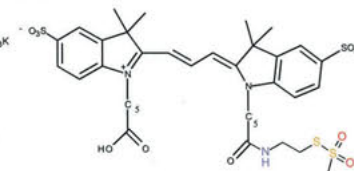
Cy(3) bis(sulfo Ind N-hexanoic acid maleimide)



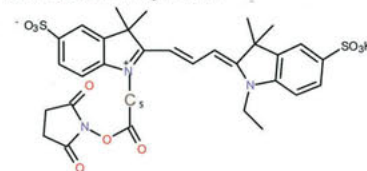
Cy(3) N-mono-hexanoic acid-maleimide



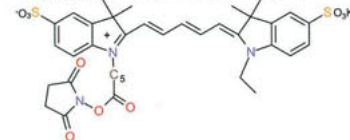
Cy(3) sulfo Ind, N-hexanoic acid mono MTSEA



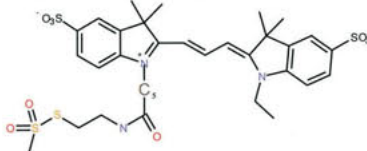
Cy(3) (sulfo Ind N-ethyl, N'-hexanoic acid succinimidyl ester)



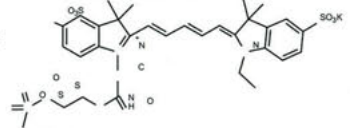
Cy(5) sulfo Ind N-ethyl, N'-hexanoic acid succinimidyl ester



Cy(3) bis(sulfo Ind), N-ethyl, N'-hexanoic acid MTSEA

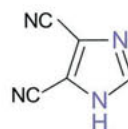


Cy(5) bis(sulfo Ind), N-ethyl, N'-hexanoic acid MTSEA

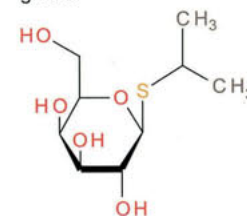


## Other products we produce from kilos to hundred-kilos scale

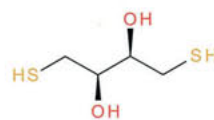
Dicyanoimidazole (DCI) ; >99% ; powder or anhydrous solutions



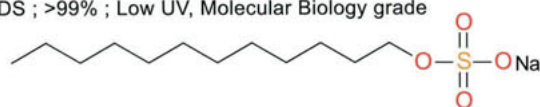
IPTG ; >99% ; Molecular Biology grade



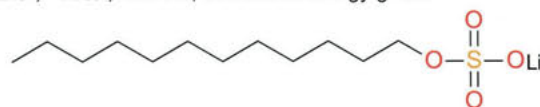
DTT ; >99% ; Molecular Biology grade



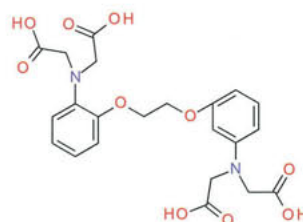
SDS ; >99% ; Low UV, Molecular Biology grade



LiDS ; >99% ; Low UV, Molecular Biology grade



BAPTA



## Custom work

Under full confidentiality

# MEMBRANE POTENTIAL DYES

RH-1691, RH-1692, RH-1838

RH 1691, RH 1692 and RH 1838 are asymmetric Pentamethine-Oxonol dyes.

They are Voltage Sensitive Dyes (with amphiphilic character) shown to be effective tool in Optical Imaging Techniques.

An important feature of these RH voltage sensitive dyes, is their ability to rapidly alter the intensity and wavelengths of emitted fluorescent light with high temporal resolution (down to the millisecond), as a result of membrane potential changes.

A major advantage of these RH dyes, is the fact that they do not absorb in the hemoglobin absorption region, resulting in improved signal to noise ratio, making them suitable for usage in-vivo.

	RH 1691	RH 1692	RH 1838
Catalogue Number	4563	4564	4565
■ Molecular weight	589	555	539
■ Max absorption in EtOH	630nm	634nm	636nm
■ Max absorption in H2O	576nm	584nm	580nm
■ Max fluorescence in EtOH	698nm	692nm	698nm
■ Max fluorescence in H2O	692nm	690nm	688nm
■ $\epsilon$ (EtOH)	~57,000	~57,000	~57,000

- Store in dry conditions under inert atmosphere
- Recommended storage temperature: <5°C
- Use fresh solution for each experiment
- Standard packages: 4 x 2.5 mg and 10mg amber glass bottle with septum

## References:

Chemla S, Chavane F; J. Physiol. Paris 2010, 104(1-2):40-50

Shoham D et al; Neuron 1999, 24(4):791-802

Slovin H et al; J. Neurophysiol. 2002, 88(6):3421-3438

Please enquire for special needs and requirements.

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