



2nd Edition



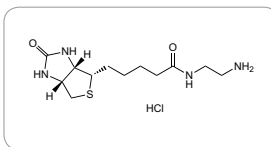
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## Neuronal Cell Stains

### N-(2-Aminoethyl)biotinamide . HCl

CDX-A0191 50 mg | 1 g

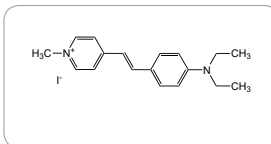
Neurobiotin used for neuronal tracing studies by visualizing neural architecture and for the identification of gap junction coupling.



### 4-Di-2-ASP

CDX-D0012 1 g | 5 g

Cationic mitochondrial, non-toxic and photo-stable dye that stains presynaptic nerve terminals independent of the neuronal activity (Ex/Em: 488/607nm).



## Neurological Agents

**Ajmalicine** Adrenergic and nicotinic receptors antagonist.

**(+)-Bicuculline** GABAA receptor antagonist.

**(-)-Cytisine** Nicotine agonist.

**Opipramol** High affinity sigma receptor agonist.

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## ROS Research Probes

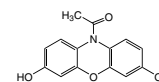
To study oxidative stress and reactive oxygen species.

### 10-Acetyl-3,7-dihydroxy-phenoxazin

CDX-A0022

25 mg | 200 mg

Amplex Red is a non-fluorescent, highly sensitive and stable probe for H<sub>2</sub>O<sub>2</sub>.

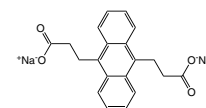


### ADPA

CDX-A0116

10 mg | 100 mg

Water-soluble singlet-oxygen-sensitive indicator dye.

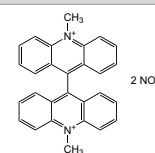


### Lucigenin

CDX-D0068

2 g | 10 g

Chemiluminescent probe for peroxide detection. Specific for superoxide anion radicals.

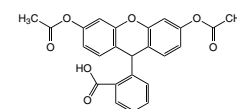


### Dihydrofluorescein diacetate

CDX-D0122

1 g | 10 g

Fluorescent redox sensor (Ex/Em: 490/514nm).



**Also available:**  
**Dihydro-rhodamine 123**

## Free Radical Scavengers

**Oxyresveratrol** CDX-O0035

**p-Nitrotetrazolium blue** CDX-N0009

**PBN** CDX-B0269

# Markers, Labels, Stains and Probes

## Amine-reactive Probes

### AMCA-H

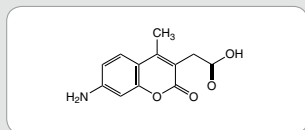
CDX-A0009

100 mg | 500 mg | 2 g

**Formula:** C<sub>12</sub>H<sub>11</sub>NO<sub>4</sub>

**MW:** 233.22

**CAS:** 106562-32-7



Bright and photostable amine-reactive blue fluorescent dye useful for immunofluorescence and fluorescent labeling (Ex/Em: 353/455nm) with large Stoke's shift and resistance to photobleaching. Reactive AMCA derivatives are used as contrasting probes for double and triple labeling in immunofluorescence microscopy, arrays and in situ hybridization.

**Also available: AMCA-H NHS | AMCA-X | AMCA-X NHS**

## Thiol-reactive Probes

### Green CMFDA

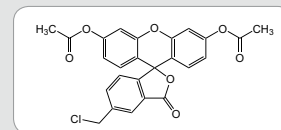
CDX-C0103

1 mg | 25 mg

**Formula:** C<sub>25</sub>H<sub>17</sub>ClO<sub>7</sub>

**MW:** 464.85

**CAS:** 136832-63-8



Thiol-reactive, cell permeant green fluorescent probe with high selectivity (Ex/Em: 492/517nm). This fluorescent dye is well suited for monitoring cell movement or location. The dye exhibits ideal tracking properties: it is stable, nontoxic at working concentrations, well retained in cells and brightly fluorescent at physiological pH.

**Also available: N-(5-Fluoresceinyl)-maleinimide (Green) | DACM (Blue) | CPM (Blue)**

## Near-infrared (NIR) Fluorescent Dyes

### NIR 4d

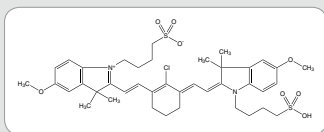
CDX-N0035

10 mg | 50 mg

**Formula:** C<sub>40</sub>H<sub>51</sub>ClN<sub>2</sub>O<sub>8</sub>S<sub>2</sub>

**MW:** 787.4

**CAS:** 162411-22-5



Near-IR fluorescent dye. Since cellular or tissue components produce minimal autofluorescence in the near-IR region, near-IR dyes have the potential to offer highly specific and sensitive detection in complex biological systems. NIR dyes are ideal for *in vivo* fluorescence imaging with strong tissue penetration light (max. absorbance: 809nm).

**Also available: NIR-797-isothiocyanate | DTTCl**

## Fluorescent pH Indicators

### Orange II sodium salt

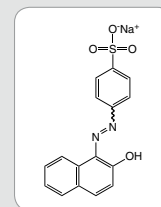
CDX-O0009

1 g | 100 g

**Formula:** C<sub>16</sub>H<sub>11</sub>N<sub>2</sub>NaO<sub>4</sub>S

**MW:** 350.3

**CAS:** 633-96-5



Azo dye useful as pH indicator (orange at pH 10.2 changing to red at pH 11.8). Reagent for the extraction and spectrophotometric determination of cationic surfactants. Spectral properties: Abs = 483nm.

**Also available: BCECF acid | BCECF-AM | HPTS | SNARF-DE | 5-CFDA NHS | 6-CFDA NHS | 5(6)-CFDA NHS**

## DNA, RNA & Oligonucleotide Stains

### Ethidium homodimer

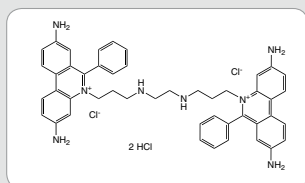
CDX-E0012

10 mg | 100 mg

**Formula:** C<sub>46</sub>H<sub>50</sub>Cl<sub>4</sub>N<sub>8</sub>

**MW:** 856.75

**CAS:** 61926-22-5



Staining dye for ssDNA, dsDNA, RNA, oligonucleotides and triplex DNA. It does not cross intact cell membranes and can be used to test cell viability.

**Also available: BAO | Quinacrine mustard dihydrochloride | Thiazol Orange**

## Fluorogenic Cell Viability Indicators

### Resorufin-isobutyrate

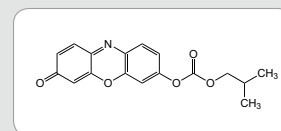
CDX-I0005

1 mg | 5 mg | 25 mg

**Formula:** C<sub>17</sub>H<sub>15</sub>NO<sub>5</sub>

**MW:** 313.3

**CAS:** 251292-24-7



Cell permeable fluorogenic indicator for cell viability. Incubation with esterase at pH 8.0 results in a 80-90 nm shift of emission max. (Ex/Em: 500/~593nm in 0.1 M Tris pH 8.0 (after cleavage by esterase)).

**Also available: IPB | Ethidium homodimer**





## Nile Red

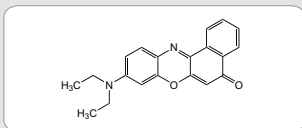
CDX-N0107

1 g | 5 g

**Formula:** C<sub>20</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>

**MW:** 318.4

**CAS:** 7385-67-3



Uncharged, hydrophobic, photostable fluorescent probe that strongly fluoresces bright red in hydrophobic (lipid-rich) environments, but is almost non-fluorescent in water. This lipophilic stain is commonly used for the detection of intracellular lipid droplets in cells (such as adipocytes) by fluorescence microscopy and flow cytometry. Intracellular fat vacuoles, filled with neutral lipids, will fluoresce green (Ex/Em: 485/525) while polar lipids will fluoresce red (Ex/Em: 552/636 nm).

## Sensitive Membrane Probes

### Rhodamine B octadecyl ester perchlorate

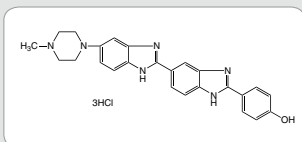
CDX-O0022

20 mg | 100 mg

**Formula:** C<sub>46</sub>H<sub>67</sub>ClN<sub>2</sub>O<sub>7</sub>

**MW:** 795.49

**CAS:** 142179-00-8



Sensitive membrane dye used for potassium (fiber-optic sensors) and nitrate sensing and other investigations of membranes. Lipophilic energy transfer acceptor from lipophilic fluoresceins in fluorescence energy transfer (FRET) assays in cell fusion experiments (Ex/Em: 554/575nm in methanol).

**Also available:** *N-Octadecanoyl-Nile Blue* | *Merocyanin 540 (Membrane Potential Probe)*

## Aminofluoresceins

### 6-Aminofluorescein

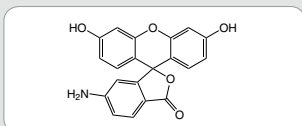
CDX-A0019

250 mg | 2 g | 10 g

**Formula:** C<sub>20</sub>H<sub>13</sub>NO<sub>5</sub>

**MW:** 347.32

**CAS:** 51649-83-3



Fluorescent labeling reagent for proteins.

**Also available:**  
*5-Aminofluorescein* | *5(6)-Aminofluorescein*

For a complete overview visit our website  
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## meso-Tetraphenyl-tetrabenzoporphine palladium complex

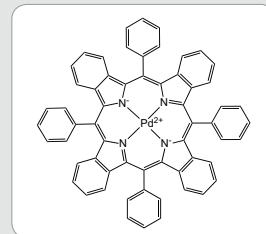
CDX-T0083

25 mg | 250 mg

**Formula:** C<sub>60</sub>H<sub>36</sub>N<sub>4</sub>Pd

**MW:** 919.39

**CAS:** 119654-64-7



Phosphorescent probe for measuring oxygen in very low concentrations. Luminescent marker for oxygen and pH in biomedical imaging.

## Rhodamine-related Reagents for Fluorescent Labeling

### 5-ROX

CDX-C0004

20 mg | 200 mg

**Also available:** *5(6)-ROX* | *5(6)-ROX N-succinimidyl ester* | *6-ROX*

### 5-TAMRA

CDX-C0055

25 mg | 250 mg

**Also available:** *5(6)-TAMRA* | *6-TAMRA* | *5-TAMRA N-succinimidyl ester* | *6-TAMRA N-succinimidyl ester*

### Rhodamine 6G ethylenediamine amide . bis trifluoroacetate

CDX-R0022

50 mg | 250 mg

**Also available:**

*Rhodamine 6G bis(oxyethylamino)ethane amide bis (TFA)*  
*Rhodamine 6G p-diaminoxylene amide bis (TFA)*  
*Rhodamine 6G bis(aminoethyl)amine amide bis (TFA)*

### Tetramethylrhodamine-5-maleimide

CDX-T0029

1 mg | 5 mg | 25 mg

**Also available:** *Tetramethylrhodamine-6-maleimide*

## Also available:

### 7-Amino-4-methylcoumarin [AMC]

CDX-A0021

250 mg | 10 g | 100 g

Widely used fluorophore to prepare substrates for cysteine aminopeptidase and other hydrolases.

### 7-Methoxycoumarin-3-carboxylic acid NHS

CDX-M0017

25 mg | 125 mg

Excellent amino-reactive tag that has strong blue fluorescence. Produces blue-fluorescent bioconjugates with an Ex/Em spec. of ~358/410nm.

## Nitric Oxide Detectors

### DAN

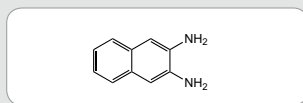
CDX-D0062

1 g | 5 g

**Formula:** C<sub>10</sub>H<sub>10</sub>N<sub>2</sub>

**MW:** 158.2

**CAS:** 771-97-1



The 2,3-diaminonaphthalene (DAN) assay is used in the determination of nitrite/nitrate levels in biological fluids and cellular extracts as an indicator of nitric oxide activity (Ex/Em: ~365/415nm). Detection at 450nm avoids fluorescent blanks and increases sensitivity.

**Broad panel of DAF compounds available:**

**DAF-2 | DAF-2 DA | DAF-2T | DAF-FM | DAF-FM DA | DAR-1 | DAR-2**

## Probes for Sequence Determinations

### [Ru(bpy)<sub>2</sub>(5-iodoacetamido-1,10-phenanthroline)](PF<sub>6</sub>)<sub>2</sub>

CDX-R0029

10 mg | 100 mg

### [Ru(bpy)<sub>2</sub>(5-chloroacetamido-1,10-phenanthroline)](PF<sub>6</sub>)<sub>2</sub>

CDX-R0028

10 mg | 100 mg

Reactive probes containing a fluorescent metal-ligand complex for the determination of nucleotide base sequences.

### AQC

CDX-A0057

50 mg | 250 mg

Suitable for amino acid or protein sequence analysis by HPLC with fluorescence detection.

## Quorum Sensing Modulators:

### New Additions!



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## (R)-3-Hydroxymyristic acid

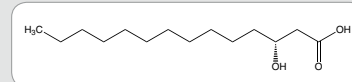
CDX-H0114

250 mg | 1 g

**Formula:** C<sub>14</sub>H<sub>28</sub>O<sub>3</sub>

**MW:** 244.4

**CAS:** 28715-21-1



Hydroxy fatty acid used to study its role in biological processes such as oxidative stress, inflammation and insulin resistance. Used in endotoxin and lipid A research, since it is one of two major components of bacterial Lipid A.

## Analytical Reference Compounds – Focus Insecticides

Pesticides are substances intended for preventing, destroying or controlling any pest. The most common use of pesticides is as agricultural products. Pesticides are mostly classified by target organism (e.g. herbicides, insecticides, fungicides, etc.) and chemical structure (e.g. organic, inorganic, synthetic or biological). Many of the pesticides significantly alter the ecosystem (toxic to human or concentrated in food chain). Chemodex offers a broad panel of insecticides, herbicides, fungicides and growth factor inhibitor substances (**not Standards**) as reference compounds to study the mode of action of these compounds.



CDX-D0309	<b>Dinotefuran</b>	Neonicotinoid insecticide.
CDX-D0316	<b>Dimethylvinphos</b>	Organophosphorus insecticide.
CDX-H0095	<b>Heptenophos</b>	Organophosphorus insecticide. AChE inhibitor. Disrupts neurotransmission.
CDX-H0096	<b>Hydramethylnon</b>	Unclassified insecticide. Metabolic inhibitor.
CDX-H0097	<b>Halofenozide</b>	Insect growth regulator. Ecdysone agonist.
CDX-I0048	<b>Isoprothiolane</b>	Unclassified insecticide. Fungicide and plant growth regulator.
CDX-I0049	<b>Isoxathion</b>	Organophosphorus insecticide. AChE inhibitor.
CDX-M0133	<b>Methoxyfenozide</b>	Insect growth regulator. Ecdysone agonist.
CDX-N0069	<b>Novaluron</b>	Insect growth regulator. Chitin synthase inhibitor. Ecdysone agonist.