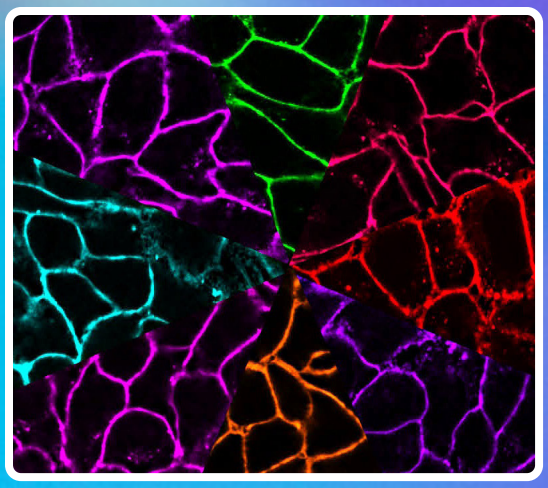


Membrane & Cell Surface Stains

Discover our collection of classic and unique cell surface stains tailored for live or fixed cells

Biotium offers a variety of bright and photostable stains to visualize cell boundaries and morphology in multi-color staining experiments. This selection includes traditional and novel stains designed for live-cell imaging, convenient labeling of fixed cells, or the staining of live cells that will be subsequently fixed and immunostained.

CellBrite® Fix and MemBrite® Fix stains are novel membrane stains designed to label live cells for downstream immunofluorescence (IF) microscopy. The stains withstand both fixation and permeabilization and are available in a wide selection of colors.

CellBrite® Steady Membrane Staining Kits allow fluorescence imaging of live cells for up to several days in culture. The CellBrite® Steady Dyes are unique fluorescent membrane probes that equilibrate between the cell surface and intracellular compartments, allowing cells to retain cell surface staining over time. Our unique CellBrite® Steady Enhancer can optionally be used to reduce intracellular fluorescence for selective imaging of cell boundaries.

Our original CellBrite® Cytoplasmic Membrane Dyes are ready-to-use staining solutions of well-characterized lipophilic carbocyanine dyes for non-toxic and stable labeling of membranes in live or fixed mammalian cells. We also offer novel near-IR dye lipophilic dye options, which are ideal for non-invasive small-animal imaging studies of cell migration and cell homing due to their long emission wavelengths. If desired, cells can be fixed with formaldehyde before or after staining.

We also offer the lectins WGA and Con A conjugated to our high-performance CF® Dyes. Lectins label glycoproteins on the surface of live or fixed cells. In permeabilized cells, these stains may also label secretory and endocytic compartments. Lectin staining may be cell-type dependent in mammalian cells. Some fluorescent lectins are useful for bacterial Gram stains and yeast cell surface stains.

Contents

Cell Surface Stain Infographic

Lipid Staining

Type of Probe

Lipophilic fluorescent dyes

Features

- Non-covalent
- Can stain fixed cells
- Tolerates PFA fixation
- Suitable for live cell imaging

Original CellBrite® Cytoplasmic Membrane Dyes

Considerations

- Dye internalization
- Uneven staining
- Incompatible with MeOH fixation

CellBrite® Steady Membrane Stains

Considerations

- Can't stain fixed cells
- Can't fix after staining

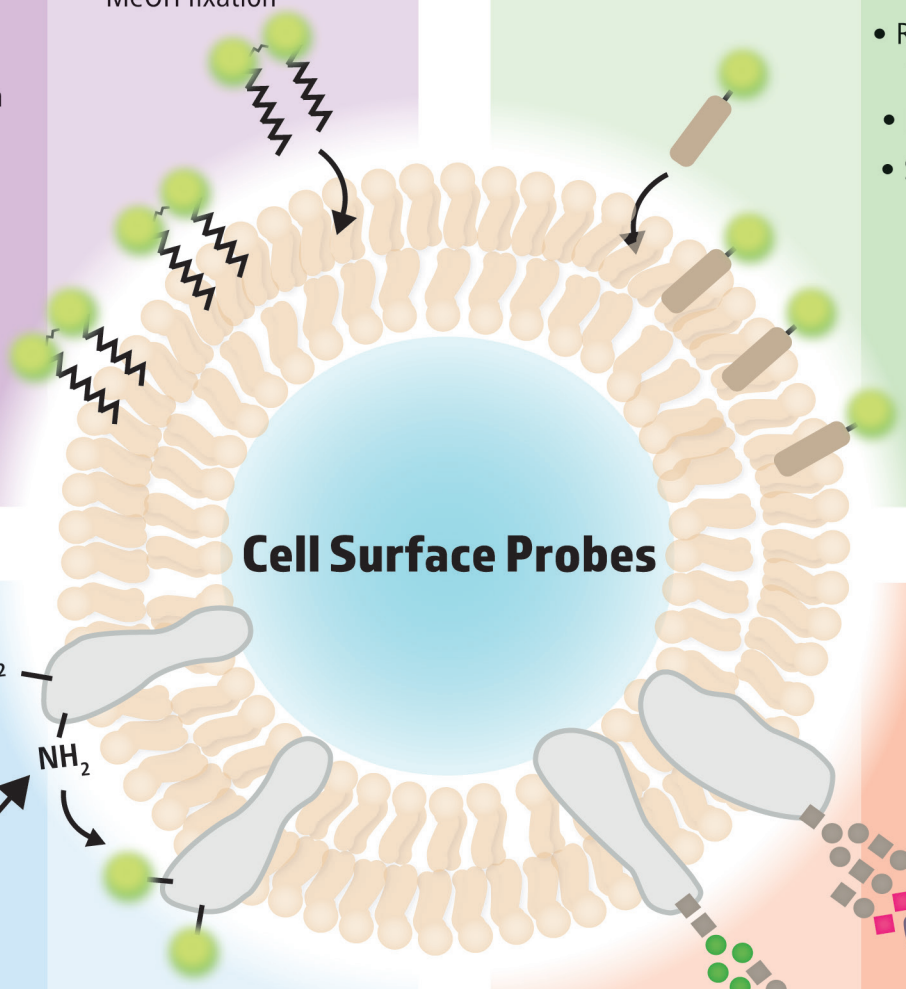
Hydrophobic Moiety

Type of Probe

Dyes with hydrophobic moiety

Features

- Retained on cell surface for up to days
- Highly uniform staining
- Suitable for long-term live cell imaging



Type of Probe

Cell surface protein reactive dyes

Features

- Covalent
- Rapid, uniform staining
- Tolerates fixation and permeabilization for IF

Considerations

- Can't stain fixed cells
- Dead cells show bright intracellular staining
- Not compatible with all culture substrate coatings

Protein Staining: non-specific

MemBrite® Fix Stains

CellBrite® Fix Stains

Considerations

- Cell type variation
- Targets also localize intracellularly

Type of Probe

Sugar-selective lectins

Features

- Non-covalent
- Suitable for FFPE tissues
- Stain live cells, fixed cells, or fix after staining

Con A Conjugates

WGA Conjugates

Glycan Staining

Hydrocarbon chain of variable length/ saturation

Hydrophobic moiety

WGA

Con A

Dye

R Reactive Dye

Table 1. Find the Right Stain for Your Application

I want to...	Recommended products	Notes
Stain live cells for immediate imaging	• CellBrite® Cytoplasmic Membrane Dyes • CellBrite® Steady Membrane Stains • CF® Dye WGA or Con A	• WGA or Con A staining may be cell-type dependent • CellBrite® Steady is recommended for the most uniform staining
Perform long-term staining of live cells	• CellBrite® Steady Membrane Stains • CellBrite® Cytoplasmic Membrane Dyes	• CellBrite® Steady stains allow for multi-day imaging of live cell surface • Original CellBrite® Cytoplasmic Membrane Dyes will be internalized by live cells over time as membranes turn over by endocytosis
Fix with formaldehyde after staining live cells	• CellBrite® Fix Membrane Stains • MemBrite® Fix Cell Surface Stains • CF® Dye WGA or Con A • CellBrite® Cytoplasmic Membrane Dyes	• CellBrite® Fix and MemBrite® Fix stains label cells more uniformly than CellBrite® Cytoplasmic Membrane Dyes • For uniform fixable staining at 4°C, we recommend MemBrite® Fix stains • CellBrite® Fix and MemBrite® Fix not suitable for all culture substrates[1]
Permeabilize with detergent after fixing stained cells	• CellBrite® Fix Membrane Stains • MemBrite® Fix Cell Surface Stains • CF® Dye WGA or Con A	• WGA or Con A staining may be cell-type dependent • CellBrite® Fix and MemBrite® Fix are not suitable for all culture substrates[1]
Fix with MeOH after staining live cells	• CellBrite® Fix Membrane Stains • MemBrite® Fix Cell Surface Stains • CF® Dye WGA or Con A	• For uniform fixable staining at 4°C, we recommend MemBrite® Fix stains
Stain formaldehyde-fixed cells	• CellBrite® Cytoplasmic Membrane Dyes • CF® Dye WGA or Con A	• WGA or Con A staining may be cell-type dependent • See Table 2 for workflow recommendations
Stain methanol-fixed cells	• CF® Dye WGA or Con A • CF® Dye Antibody Conjugates	• WGA or Con A staining may be cell-type dependent • Surface and intracellular staining may be observed in fixed or fixed/permeabilized cells
Stain bacterial cell surface	• CellBrite® Fix Membrane Stains	• WGA and MemBrite® Fix stain gram+ cells but not gram- bacteria
Stain yeast cell surface	• CellBrite® Fix Membrane Stains • MemBrite® Fix Cell Surface Stains • CF® Dye Con A	• WGA selectively stains yeast bud scars • CellBrite® Fix and Con A stain entire yeast cell wall

1. See Page 4 for more information.

Table 2. Membrane and Surface Stains Comparisons

Product	Dye transfer between cells	Non-toxic, stable[1]	Stains yeast	Stains bacteria	Stain after fixing[2]	Fix after staining	Tolerates detergent/ MeOH fix?	Color selection	Pros & Cons
CellBrite® Cytoplasmic Membrane Dyes	Minimal	Yes[1]	No	No	Yes[2, 3]	Yes[3]	No[4]	8 colors (blue to near-IR)	• Pro: Fix before or after staining[3] • Con: Staining can be uneven • Con: Poor tolerance for MeOH/detergent[4]
CellBrite® Fix Membrane Staining Kits	Minimal	Yes	Yes	Yes	No	Yes	Yes	Green, red, far-red	• Pro: Rapid, uniform staining • Pro: Fix & perm cells for IF • Pro: Stains yeast & bacteria • Con: Can't stain fixed cells
MemBrite® Fix Cell Surface Staining Kits	Minimal	Yes	Yes	Gram + only	No	Yes	Yes	12 colors (blue to near-IR)	• Pro: Rapid, uniform staining • Pro: Fix & perm cells for IF • Pro: Great color selection • Pro: Stains yeast • Con: Can't stain fixed cells
CellBrite® Steady Membrane Staining Kits stained cells	Yes	Yes	No	No	No	No	No	5 colors (blue to near-IR)	• Pro: Image live cell surface for days • Pro: Enhancer masks intracellular staining • Pro: Fast, even staining in medium • Con: Does not tolerate fixation • Con: Can't stain fixed cells
CF® Dye WGA Conjugates	Possible	Possibly toxic[5]	Bud scars	Gram + only	Yes	Yes	Yes	13 colors (UV to near-IR)	• Pro: Fix before or after staining • Pro: Fluorescent Gram stain • Pro: Yeast bud scar stain • Pro: Great color selection • Con: Staining varies among cell types
CF® Dye Con A Conjugates	Possible	Possibly toxic[5]	Yes	Reported to stain biofilms	Yes	Yes	Yes	10 colors (UV to near-IR)	• Pro: Fix before or after staining • Pro: Great color selection • Pro: Stains yeast • Con: Staining varies among cell types

1. Membrane and cell surface labels will be internalized by endocytosis in live cells over time. 2. Intracellular membranes may be labeled in fixed cells. 3. Formaldehyde fixation is recommended for CellBrite® Cytoplasmic Membrane Dyes. 4. Good results can be obtained when cells are fixed with PFA, then permeabilized, then stained with original CellBrite® Cytoplasmic Membrane Dyes (see Fig. 5 on Page 6). 5. Lectins may be toxic or stimulatory to live cells depending on cell type.

Unique Membrane Dyes that Tolerate Fixation and Permeabilization

CellBrite® Fix Membrane Stains and MemBrite® Fix Cell Surface Staining Kits are a series of proprietary fluorophores developed by Biotium to rapidly stain the outer plasma membranes of live cells. Staining is covalent and can withstand permeabilization and fixation, allowing plasma membrane staining to be combined with intracellular staining using antibodies. This compatibility with methanol fixation and detergent permeabilization sets MemBrite® Fix and CellBrite® Fix apart from other membrane dyes like DiO, DiI, Vybrant®, CellMask™, CellVue®, and PKH dyes. MemBrite® Fix and CellBrite® Fix stains also have improved water solubility and more uniform staining than lipophilic carbocyanine dyes like DiI and the original CellBrite® Cytoplasmic Membrane Dyes. Dye options are available for STORM and other super-resolution imaging methods.

Features

- **Lock in Signal Quality**: Staining is well retained after PFA or methanol fixation and permeabilization
- **Ideal for IF**: Seamlessly combine surface staining with intracellular immunofluorescence
- **Wide-Ranging Color Options**: Pick from an array of photostable dye colors from blue to near-IR
- **From Mammals to Microbes**: Our dyes are compatible with many cell types, including mammalian, yeast, and bacteria
- **Options for Super-Resolution**: Validated for several super-resolution applications, including STORM, 2-photon, STED, and TIRF

CellBrite® Fix Tolerates Fixation and Permeabilization

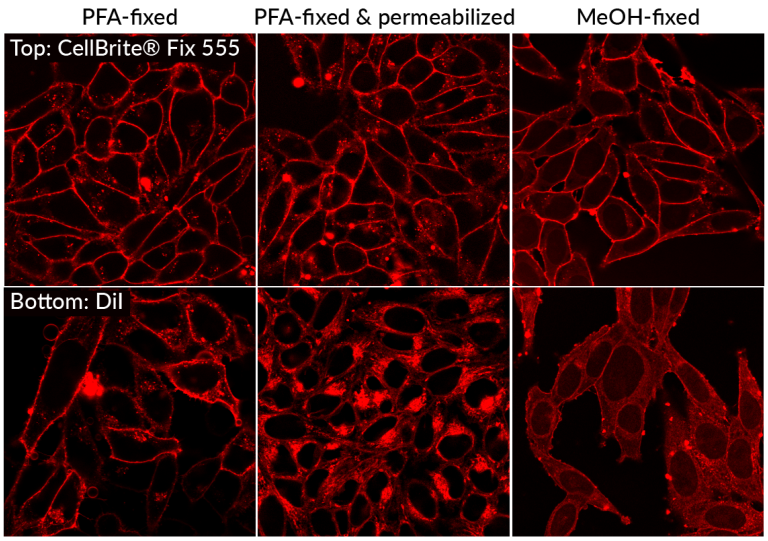


Figure 1. Comparison of traditional carbocyanine dye and CellBrite® Fix before and after fixation in HeLa cells. CellBrite® Fix 555 gave more even surface staining and was better retained after fixation/permeabilization compared to DiI.

MemBrite® Fix is Available in a Wide Choice of Colors

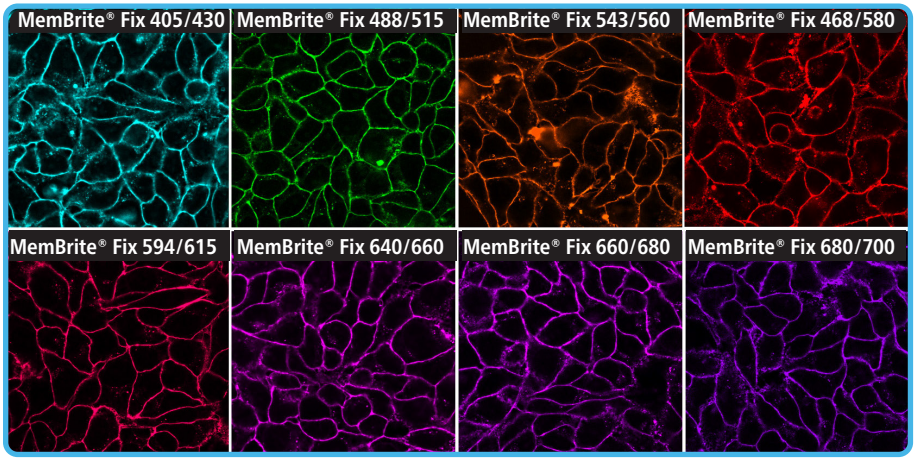


Figure 2. Cells were labeled with the indicated MemBrite® Fix Dye for 5 minutes at 37°C, then fixed with 4% paraformaldehyde (PFA) for 20 minutes at room temperature, followed by permeabilization with PBS/0.1% Triton® X-100 for 10 minutes at room temperature.

What's the difference between CellBrite® Fix and MemBrite® Fix Stains?

Both CellBrite® Fix and MemBrite® Fix covalently react with cell surface proteins for fixable staining. The stains target different reactive groups and are suitable for different applications. See Table 3 below for a more detailed comparison.

Table 3. Comparison of MemBrite® Fix and CellBrite® Fix Stains

Stain	Color Selection	Procedure	Bacterial Staining	Plate Compatibility	Specialized Applications
CellBrite® Fix Membrane Stains	3 colors options	A single 15-minute staining step	Yes	• Not compatible with plates coated with poly-L-lysine, protein, or Matrigel®	• CellBrite® Fix 488 is compatible with SIM
MemBrite® Fix Cell Surface Staining Kits	12 colors options	Two-step staining protocol with washing	Gram + only	• Compatible with poly-L-lysine plates • Not compatible with plates coated with protein or Matrigel®	• MemBrite® Fix stains are ideal for STORM • Several color options are also validated for SIM, STED, 2-Photon, and TIRF

Cell Surface Staining Kits for Long Term, Live-Cell Imaging

CellBrite® Steady Membrane Staining Kits are novel fluorescent probes designed for long-term imaging of live cells for up to several days in culture. The CellBrite® Steady Dyes are non-toxic and equilibrate between cell surfaces and intracellular compartments, allowing cells to retain surface staining for much longer than traditional lipophilic membrane dyes. With the use of CellBrite® Steady Enhancer, intracellular staining can be reduced or eliminated for more selective visualization of cell outlines or boundaries. These stains do not covalently modify amino acids on cell surface proteins, reducing the potential for masking of antibody binding sites or other biological effects. Washing after staining is required for epifluorescence imaging but optional for confocal imaging of CellBrite® Steady staining.

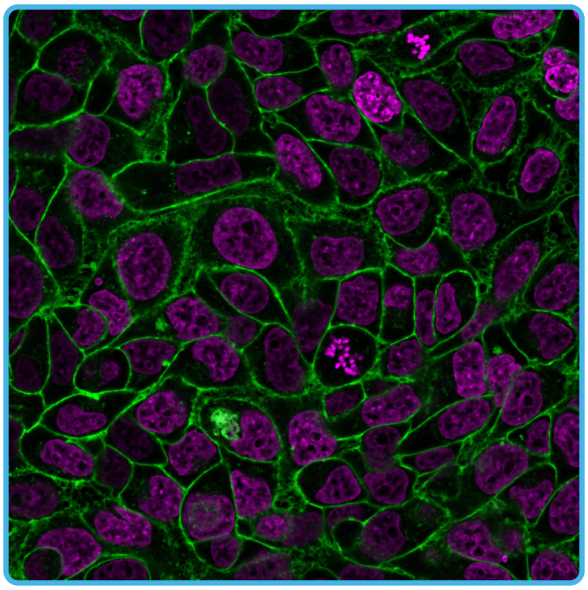


Figure 3. Live HeLa cells co-stained with CellBrite® Steady 488 (green) with Enhancer and NucSpot® Live 650 (magenta) for 45 minutes. Cells were imaged by confocal microscopy without a wash step.

Features

- **Long-Lasting Stains**: Staining is retained on cell surfaces longer than lipophilic dyes for more uniform long-term staining
- **Capture Cells in Action**: Low-toxicity stains ideal for long-term imaging of live cells
- **Enhance Your Results**: Includes optional enhancer for improved cell surface imaging
- **Palette of Possibilities**: Choose from 5 vibrant colors, including STORM-compatible options

CellBrite® Steady Stains Retain Signal on Live Cell Surfaces Longer than Traditional Lipophilic Dyes

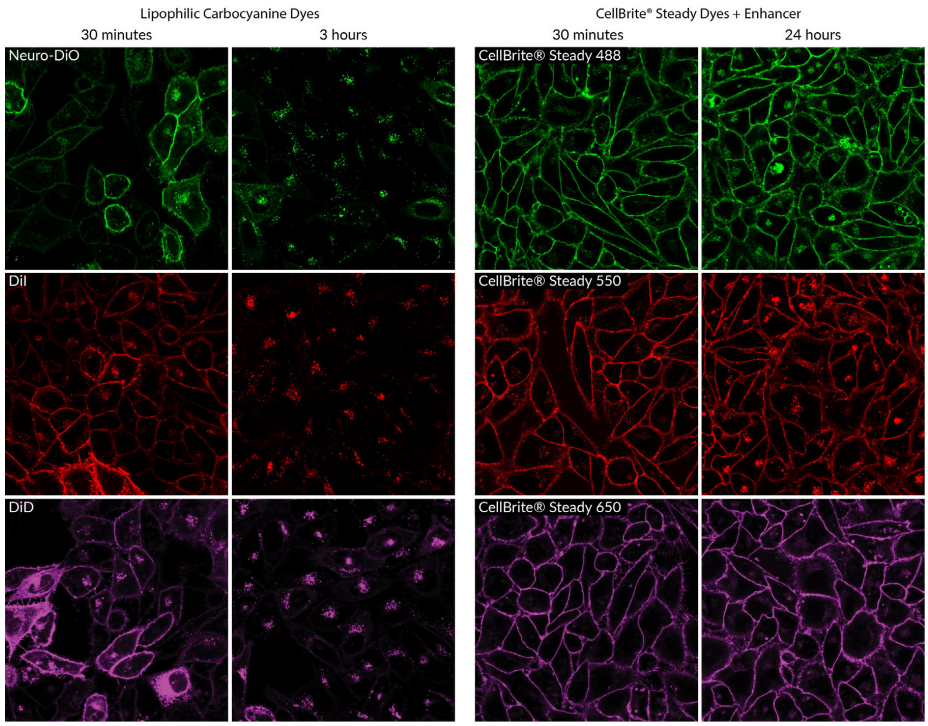


Figure 4. Live HeLa cells stained with the lipophilic carbocyanine dyes Neuro-DiO, DiI, or DiD or CellBrite® Steady Membrane Dyes and Enhancer. Lipophilic carbocyanine dyes are rapidly internalized into intracellular compartments, so surface staining must be imaged within short time frames. CellBrite® Steady Dyes stain cell membranes evenly, and surface staining can be clearly imaged for 24 hours with the use of Enhancer.

Classic Lipophilic Dyes for Labeling Cytoplasmic Membranes

CellBrite® Cytoplasmic Membrane Dyes are ready-to-use staining solutions of the non-toxic, classic lipophilic carbocyanine dyes DiB, Neuro-DiO, DiI, and DiD. These non-toxic cytoplasmic membrane dyes can be used in live or formaldehyde-fixed cells. The resulting staining is very stable, with very little dye transfer between cells, making the dyes suitable for labeling live cells and tracking studies. CellBrite® Cytoplasmic Membrane Dyes can be used to label cell populations with different colors for identification after mixing (Figure 6). However, when live cells are cultured after staining, the dyes are internalized over time by endocytosis. For longer-term and more uniform labeling of cellular surfaces in live cells, we recommend CellBrite® Steady Membrane Staining Kits (page 5) as an alternative stain.

Cells stained with CellBrite® Cytoplasmic Membrane Dyes can be fixed either before or after staining. Permeabilization after staining is not recommended, but good results can be obtained if cells are fixed and gently permeabilized before staining (Figure 5). Staining may be combined with downstream immunofluorescence using modified staining protocols (Figure 7).

Biotium also offers DiR and CellBrite® NIR Cytoplasmic Membrane Dyes, which are four unique near-infrared carbocyanine dyes. These dyes are appropriate for labeling the cytoplasmic membranes in live or formaldehyde-fixed cells, and due to their long emission wavelengths, they are ideal for non-invasive small-animal imaging studies of cell migration and cell homing. They have improved solubility for more uniform labeling than classic dyes like DiR, with an expanded wavelength selection.

Stain Before or After Fixation with CellBrite® Cytoplasmic Membrane Dyes

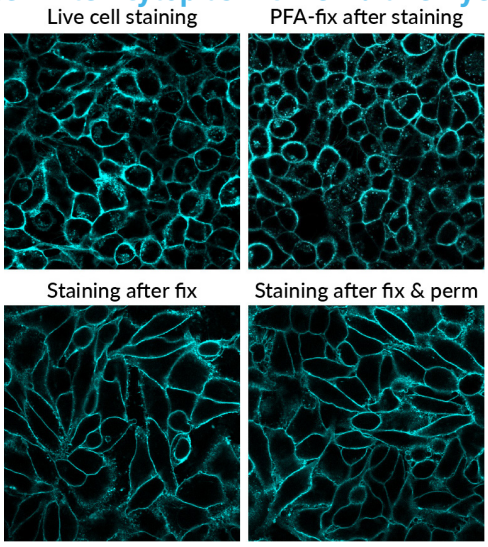


Figure 5. Left to right: live cells stained with CellBrite® Blue; cells stained live, then fixed with formaldehyde (PFA); cells fixed with PFA, then stained with CellBrite® Blue; cells fixed with PFA, permeablized with Triton® X-100, then stained with CellBrite® Blue.

Features

- **Ready, Set, Glow**: Choose from ready-to-use, high-purity solutions of DiB (blue), Neuro-DiO (green), DiI (orange), and DiD (red), plus novel near-IR dyes
- **Unique Near-IR Colors**: Four distinct near-IR colors, with emission extending up to 820 nm
- **Dye Your Way**: Stain before or after PFA fixation, giving you the flexibility to tailor your experiment
- **Verified Tracers**: Well-characterized non-toxic dyes with minimal cell-cell transfer
- **Proven Results**: Lipophilic carbocyanine dyes, like DiI, have been used with excellent results for decades in diverse applications

Label Mixed Cell Cultures in Suspension

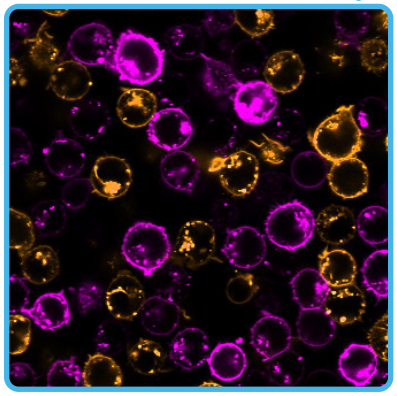


Figure 6. Live Jurkat cells were suspended at 107 cells/mL in HBSS buffer and stained with CellBrite® Cytoplasmic Membrane Dyes for 10 minutes at 37°C. One aliquot of cells was labeled with 1X CellBrite® Orange and a second aliquot was labeled with 1X CellBrite® Red. The cells were pelleted, washed twice with HBSS, mixed together, and then imaged by confocal microscopy.

Compatible with Multi-Color Immunofluorescence

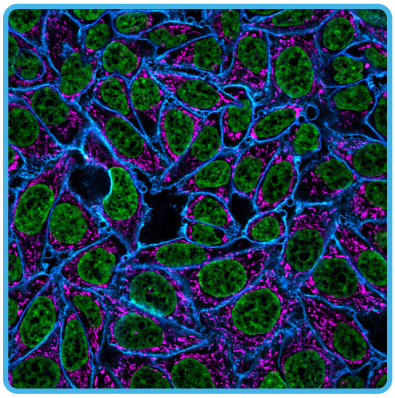


Figure 7. HeLa cells were fixed with PFA and permeabilized for 10 minutes with 0.1% Triton® X-100. Cells were blocked with 2X fish gelatin blocking agent in PBS with no detergent, then stained with CF®640R Anti-Mitochondrial Marker clone 113-1 (mitochondria, magenta) and NucSpot® 470 (nuclei, green). After immunofluorescence, cells were stained with CellBrite® Blue Cytoplasmic Membrane Stain (plasma membrane, blue) in PBS for 10 minutes at room temperature.

Bright and Photostable CF® Dye Lectin Conjugates

Biotium offers CF® Dye lectin conjugates, including WGA and Con A, in a variety of colors. Lectins are carbohydrate-binding proteins that recognize specific sugar moieties on cell surface glycoproteins. They can be used to selectively stain the cell surface of live cells and withstand fixation and permeabilization. When cells are fixed and permeabilized before staining, fluorescent lectins stain both the cell surface and organelles in the secretory pathway. WGA is also a live cell Gram stain for bacteria, while Concanavalin A and WGA conjugates can be used to stain cell walls and bud scars in yeast. See the Membrane and Surface Stains Comparisons table on page 3 for more details on cell type compatibility with our different CF® Dye lectin conjugates.

CF® Dye Lectin Staining

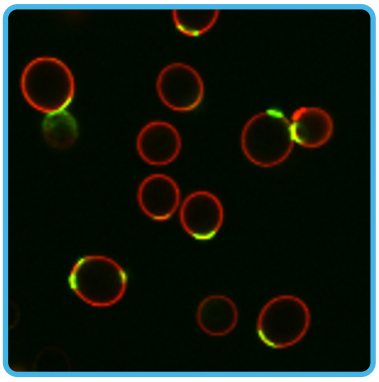


Figure 8. *S. cerevisiae* stained with CF®594 Con A (cell walls, red) and CF®488A WGA (bud scars, green).

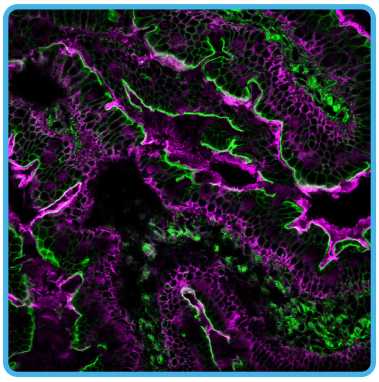


Figure 9. Formaldehyde-fixed cryosection of rat skeletal muscle stained with CF®640R WGA (magenta) and CF®488A phalloidin (green).

Features

- **Wide Color Selection**: Explore our spectrum of brilliant, photostable, and water-soluble CF® Dyes conjugates
- **Versatile Applications**: Options for staining cell surfaces in yeast, bacteria, or mammalian cells
- **Fixation Options**: Use on fixed or live cells, with the option to fix and permeabilize after staining

Membrane Stains for Yeast and Bacteria

Biotium carries a collection of fluorescent dyes and assay kits, perfect for staining bacteria, yeast, or other fungi. For staining live bacterial cell membranes, consider CellBrite® Fix Membrane Stains, SynaptoGreen™ C4, or SynaptoRed™ C2. Biotium also offers several specialized gram-specific bacterial stains, including MemBrite® Fix Membrane Stains, Calcofluor White, and our WGA conjugates, which feature bright and photostable CF® Dyes for rapid and sensitive staining of gram-positive bacteria. These WGA conjugates are available in 13 color options and are included as a gram stain in our bacterial gram-staining kits. For researchers who need to stain yeast cell membranes, we carry an array of cellular stains perfectly suited for the job. More information can be found in the table below and on the Microbiology Technology page at www.biotium.com.

Table 4. Surface Stains Validated for Yeast and Bacteria

Stain	Gram+ Bacteria	Gram- Bacteria	Yeast	Features
CellBrite® Fix Membrane Stains	Yes	Yes	Yes	• Fixable membrane dyes • Green, red and far-red options • Useful for fluorescence microscopy
MemBrite® Fix Membrane Stains	Yes	No	Yes	• Stains the cell periphery • Available in 12 dye colors
CF® Dye Concanavalin A (Con A)	No	No	Yes	• Selectively binds to α-mannopyranosyl and α-glucopyranosyl residues • Available with 10 CF® Dye colors
CF® Dye Wheat Germ Agglutinin (WGA)	Yes	No	Bud scars	• Has high affinity for sialic acid and N-acetylglucosamine • Choose from 13 CF® Dyes or HRP
Calcofluor White Stain	Yes	No	Yes	• Fluorescent blue dye • Binds to cellulose and chitin • Used to stain cell walls of fungi, algae, and plants
SynaptoGreen™ C4	Yes	Yes	Yes*	• Green fluorescent membrane dye • Useful for fluorescence microscopy
SynaptoRed™ C2	Yes	Yes	Yes*	• Red fluorescent membrane dye • Useful for fluorescence microscopy

* In yeast, this dye rapidly internalizes to vacuolar membranes.

CellBrite® Cytoplasmic Membrane Dyes

Cat. No.	Product	Ex/Em (nm)
30024	CellBrite® Blue Cytoplasmic Membrane Dye	360/441
30021	CellBrite® Green Cytoplasmic Membrane Dye	489/506
30022	CellBrite® Orange Cytoplasmic Membrane Dye	551/569
30023	CellBrite® Red Cytoplasmic Membrane Dye	648/670
30070	CellBrite® NIR680 Membrane Dye	683/724
30077	CellBrite® NIR750 Membrane Dye	748/781
30078	CellBrite® NIR770 Membrane Dye	767/806
30079	CellBrite® NIR790 Membrane Dye	787/820

CellBrite® Fix Membrane Labeling Kits

Cat. No.	Product	Ex/Em (nm)
30090	CellBrite® Fix 488 Membrane Stain	480/513
30088	CellBrite® Fix 555 Membrane Stain	542/570
30089	CellBrite® Fix 640 Membrane Stain	638/667

MemBrite® Fix Cell Surface Labeling Kits

Cat. No.	Product	Ex/Em (nm)
30092	MemBrite® Fix 405/430 Cell Surface Staining Kit	411/431
30093	MemBrite® Fix 488/515 Cell Surface Staining Kit	490/516
30094	MemBrite® Fix 543/560 Cell Surface Staining Kit	543/563
30095	MemBrite® Fix 568/580 Cell Surface Staining Kit	562/584
30096	MemBrite® Fix 594/615 Cell Surface Staining Kit	593/615
30097	MemBrite® Fix 640/660 Cell Surface Staining Kit	640/660
30098	MemBrite® Fix 660/680 Cell Surface Staining Kit	662/682
30099	MemBrite® Fix 680/700 Cell Surface Staining Kit	680/701
30101	MemBrite® Fix-ST 650 Cell Surface Staining Kit[1]	650/665
30102	MemBrite® Fix-ST 667 Cell Surface Staining Kit[1]	667/685
30103	MemBrite® Fix-ST 681 Cell Surface Staining Kit[1]	681/698
30104	MemBrite® Fix-ST 755 Cell Surface Staining Kit[1]	755/779

1. ST indicates dyes for STORM super-resolution imaging.

CellBrite® Steady Membrane Staining Kits

Cat. No.	Product	Ex/Em (nm)
30105	CellBrite® Steady 405 Membrane Staining Kit	406/428
30106	CellBrite® Steady 488 Membrane Staining Kit	505/529
30107	CellBrite® Steady 550 Membrane Staining Kit	562/579
30108	CellBrite® Steady 650 Membrane Staining Kit	656/676
30109	CellBrite® Steady 685 Membrane Staining Kit	686/708

CF® Dye Wheat Germ Agglutinin (WGA) Conjugates

Cat. No.	Product	Ex/Em (nm)
29021	CF®350 Wheat Germ Agglutinin (WGA) Conjugate	355/450
29027	CF®405S Wheat Germ Agglutinin (WGA) Conjugate	411/431
29028	CF®405M Wheat Germ Agglutinin (WGA) Conjugate	416/452
29022	CF®488A Wheat Germ Agglutinin (WGA) Conjugate	490/516
29064	CF®532 Wheat Germ Agglutinin (WGA) Conjugate	531/552
29076	CF®555 Wheat Germ Agglutinin (WGA) Conjugate	554/568
29077	CF®568 Wheat Germ Agglutinin (WGA) Conjugate	562/584
29023	CF®594 Wheat Germ Agglutinin (WGA) Conjugate	593/615
29024	CF®633 Wheat Germ Agglutinin (WGA) Conjugate	629/650
29026	CF®640R Wheat Germ Agglutinin (WGA) Conjugate	642/663
29029	CF®680 Wheat Germ Agglutinin (WGA) Conjugate	681/698
29025	CF®680R Wheat Germ Agglutinin (WGA) Conjugate	680/701
29059	CF®770 Wheat Germ Agglutinin (WGA) Conjugate	770/797

CF® Dye Concanavalin A (Con A) Conjugates

Cat. No.	Product	Ex/Em (nm)
29015	CF®350 Concanavalin A (Con A) Conjugate	355/450
29075	CF®405S Concanavalin A (Con A) Conjugate	411/431
29074	CF®405M Concanavalin A (Con A) Conjugate	416/452
29016	CF®488A Concanavalin A (Con A) Conjugate	490/516
29017	CF®594 Concanavalin A (Con A) Conjugate	593/615
29018	CF®633 Concanavalin A (Con A) Conjugate	629/650
29019	CF®640R Concanavalin A (Con A) Conjugate	642/663
29020	CF®680 Concanavalin A (Con A) Conjugate	681/698
29080	CF®750 Concanavalin A (Con A) Conjugate	755/777
29058	CF®770 Concanavalin A (Con A) Conjugate	770/797

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