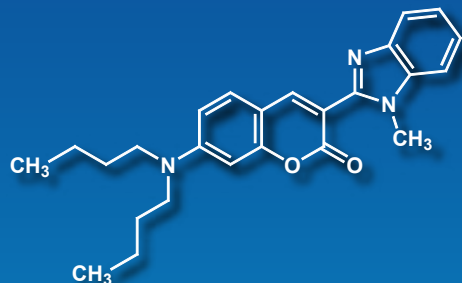
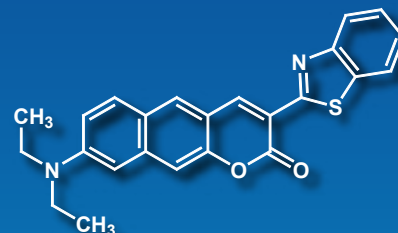


Fluorescent Imaging Reagents for Lipid Droplet



DBC30 (2mg/mL in Dimethyl Sulfoxide)
[for Biochemical Research]
0.1mL
[D6131] **New**

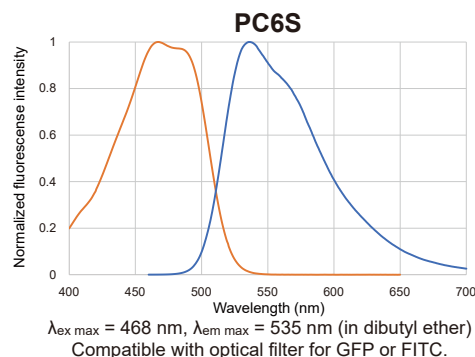
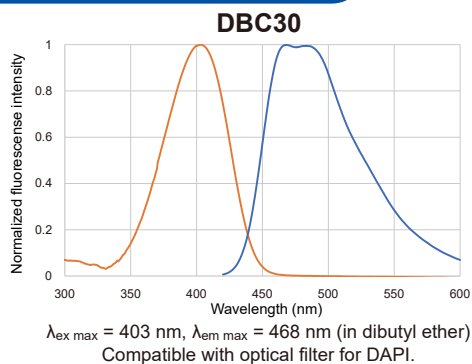


PC6S (1mg/mL in Dimethyl Sulfoxide)
[for Biochemical Research]
0.04mL / 0.2mL
[P3152]

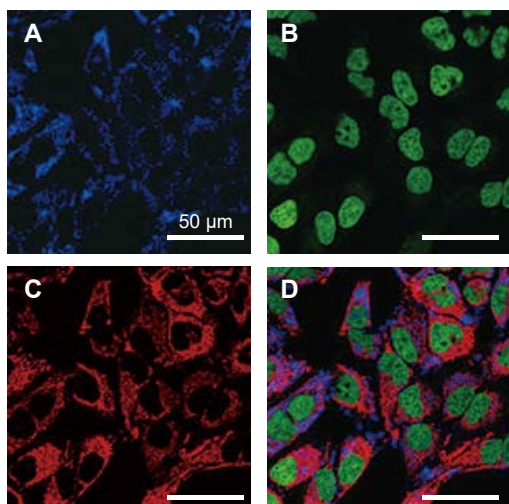
Advantages

- Stains lipid droplets in both cells and tissues clearly and distinctly due to the high fluorescence intensity.
- Can be used in combination with multiple fluorescent dyes due to the high lipid droplet selectivity and intracellular retention.

Excitation and Emission Spectra



Application : multiple staining of cells using DBC30



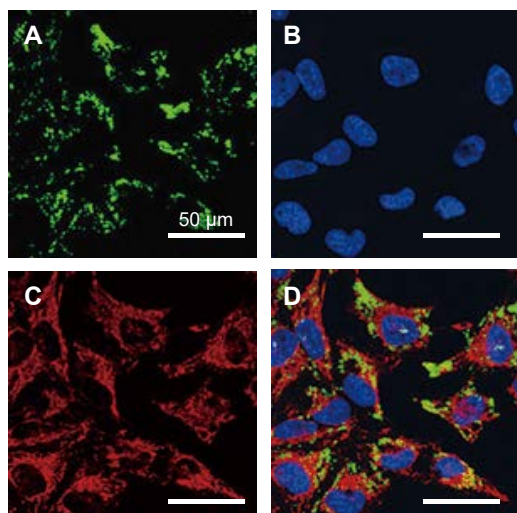
1. Add oleic acid to medium of HeLa cells and incubate for 24 hours.
2. Replace with medium containing DBC30, NucleoSeeing® and MitoTracker® Red, and incubate at 37°C for 30 minutes.
3. Remove the medium and wash twice with PBS(-).
4. Observe through confocal fluorescence microscope.

- A : DBC30 (Lipid droplets)
B : NucleoSeeing® (Nucleus)
C : MitoTracker® Red (Mitochondria)
D : Merged image

NucleoSeeing® is a registered trademark of Funakoshi Co., Ltd.
MitoTracker® is a registered trademark of Molecular Probes, Inc.

Fluorescent Imaging Reagents for Lipid Droplet

Application : multiple staining of cells using PC6S

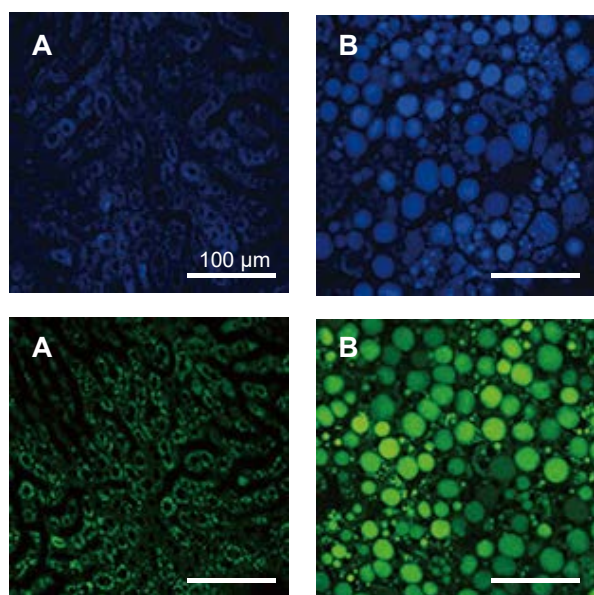


1. Add oleic acid to medium of HeLa cells and incubate for 24 hours.
2. Replace with medium containing PC6S, Hoechst® 33342, MitoTracker® Red and incubate at 37 °C for 30 minutes.
3. Remove the medium and wash twice with PBS(-).
4. Observe through fluorescence microscope.

A : PC6S (Lipid droplets)
B : Hoechst® 33342 (Nucleus)
C : MitoTracker® Red (Mitochondria)
D : Merged image

Hoechst® is a registered trademark of Hoechst GmbH.
MitoTracker® is a registered trademark of Molecular Probes, Inc.

Application : *in vivo* imaging of lipid droplets



The images of the surface of the mouse liver

Generation of fatty liver model mouse

- Feed Choline-deficient and L-Methionine-reduced ultra-high fat diet.

Lipid droplet imaging with DBC30 or PC6S

- Inject 50 nmol of DBC30 or PC6S into the tail vein of the mouse under anesthesia.
- After 30 minutes, expose the liver of the mouse and observe through confocal fluorescence microscope.

DBC30

Excitation wavelength : 405 nm
Observation wavelength : 440 - 480 nm

PC6S

Excitation wavelength : 488 nm
Observation wavelength : 500 - 540 nm

A : Healthy mouse
B : Fatty liver model mouse

These figures are provided by Dr. Toshitada Yoshihara.

References T. Yoshihara *et al.*, *Anal. Chem.* **2020**, 92, 4996. <https://doi.org/10.1021/acs.analchem.9b05184>
K. Purevsuren *et al.*, *J. Photochem. Photobiol. A* **2023**, 438, 114562. <https://doi.org/10.1016/j.jphotochem.2023.114562>

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