

New

LIFE SCIENCE



Fluorescent Probe for Lipid Droplet Imaging ShoyakuGreen



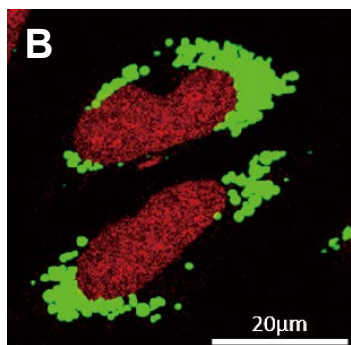
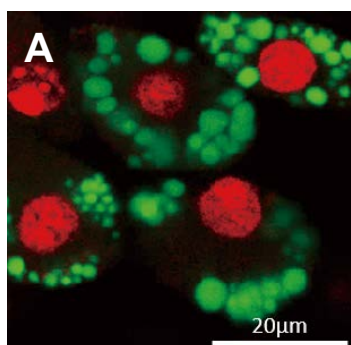
ShoyakuGreen (= TFMAQ-8Ph)
2 mg
[T3935]

Advantages

- Maximum excitation wavelength at 404 nm, Maximum emission wavelength at 473 nm (in *n*-hexane)
- Strong and specific fluorescence imaging of lipid droplets
- Low cytotoxicity

Reference Y. Fuchi, K. Hamada, S. Karasawa, et al., *Sci. Rep.* **2019**, 9, 17723.
<https://doi.org/10.1038/s41598-019-53882-z>

Application: Intracellular Lipid Droplet Imaging



(Observation via Leica TCS SP5)

[Cell Pre-Treatment]

- 3T3-L1 cells were incubated with differentiation medium in a 5% CO₂ incubator at 37°C for 10 days.
- HeLa cells were incubated with oleic acid in a 5% CO₂ incubator at 37°C for 48 hours.

[Preparation of ShoyakuGreen Solution]

Stock solution: ShoyakuGreen was dissolved in 100% DMSO at a concentration of 1 mM.

Working solution: The above stock solution was diluted to a final working concentration of 1 μM in culture medium

[Fluorescence Staining of Intracellular Lipid Droplets]

- Remove culture medium and Replace with 1 μM ShoyakuGreen working solution (Green).
- Incubate cells in a 5% CO₂ incubator at 37°C for 30 minutes.
- Wash – PBS x 3
- Fixation - 4% PFA/PB, RT, 10 minutes
- Wash – PBS x 3
- Permeabilization - 0.1% Triton X-100/PBS, RT, 15 minutes
- Wash – PBS x 3
- RNase Treatment – 100 μg/mL RNase/PBS, 37°C, 20 minutes
- Wash – PBS x 3
- PI Staining – add 5 μg/mL PI/PBS (red), 15 minutes
- Wash – PBS x 3
- Observe lipid droplets using an appropriate fluorescence microscope.

This product was commercialized under instruction of Prof. Satoru Karasawa, Dr. Yasufumi Fuchi, and Dr. Koichi Hamada.

Ordering and Customer Service

TCI AMERICA

Tel : 800-423-8616 / 503-283-1681
Fax : 888-520-1075 / 503-283-1987
E-mail : Sales-US@TCIchemicals.com

TCI EUROPE N.V.

Tel : +32 (0)3 735 07 00
Fax : +32 (0)3 735 07 01
E-mail : Sales-EU@TCIchemicals.com

TCI Deutschland GmbH

Tel : +49 (0)6196 64053-00
Fax : +49 (0)6196 64053-01
E-mail : Sales-DE@TCIchemicals.com

Tokyo Chemical Industry UK Ltd.

Tel : +44 (0)1865 78 45 60
E-mail : Sales-UK@TCIchemicals.com

TCI Chemicals (India) Pvt. Ltd.

Tel : 1800 425 7889 / 044-2262 0909
Fax : 044-2262 8902
E-mail : Sales-IN@TCIchemicals.com

梯希爱(上海)化成工业发展有限公司

Tel : 800-988-0390 / 021-67121386
Fax : 021-6712-1385
E-mail : Sales-CN@TCIchemicals.com

TOKYO CHEMICAL INDUSTRY CO., LTD.

Tel : +81 (0)3-5640-8878
E-mail : globalbusiness@TCIchemicals.com

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