RediStain™ WormDye Lipid Green Reagent

SKU: DYE9439  SIZE: 500 UL (100 USES)

Storage upon receipt: <-20°C
Protect from light
Packaged concentration: 1.34 mg/mL

Emission: 493 nm
Excitation: 503 nm
Solute: DMSO

Description

RediStain™ WormDye Lipid Green reagent is an intrinsically lipophilic fluorophore that can be used to effectively track lipids inside C. elegans. RediStain™ WormDye Lipid Green reagent is chemically identical to Bodipy™ 493/503. When using this reagent’s native lipid droplet morphology is preserved and fat content per body volume can be quantified in individual worms.

Standard Worm Staining Protocol

1. PREPARE WORMS

1.1 Pipette 1 mL of M9 onto plate containing C. elegans. Swirl plate gently and transfer M9 and worms into EpiTube

1.2 Wash worms 3x

1.2.1 Allow worms to settle or centrifuge at 6000 RPM for 2 minutes

1.2.2 Remove supernatant, leaving worms in pellet at bottom of the EpiTube

1.2.3 Add 1 mL M9

1.2.4 Repeat Steps 1.2.1–1.2.3 x 2

1.2.5 After the final rinse, remove as much liquid as possible, leaving only worm pellet

2. DILUTE

2.1 Dilute RediStain Lipid Green reagent immediately prior to use

2.1.1 Thaw at room temperature
2.1.2 Add 5 µL of RediStain™ Lipid Green reagent to 1 mL of M9

2.1.3 Pipette to mix

3. INCUBATE

3.1 Add diluted RediStain™ Lipid Green reagent to the freshly washed worms (step 1.3)

3.2 Incubate for 20-30 minutes at room temperature and away from light

4. WASH

4.1 Remove RediStain™ Lipid Green reagent, leaving worms in a pellet at the bottom of the EpiTube

4.2 Rinse in M9 buffer at least 3 times (see Step 1.2)*. Residual stain may obscure fluorescent signal.

*Alternatively, transfer worms to a fresh plate, and let crawl on a bacterial lawn for approximately 1 hour to destain. (If destaining worms on plate repeat steps 1-1.24, ending with rinsed worms in EpiTube.)

5. USE

5.1 Image worms immediately.

Protocol for Simultaneous RediStain imaging and EPG in ScreenChip System

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1.2 Wash worms 3x

1.2.1 Allow worms to settle or centrifuge at 6000 RPM for 2 minutes

1.2.2 Remove supernatant, leaving worms in pellet at bottom of the EpiTube

1.2.3 Add 1 mL M9

1.2.4 Repeat Steps 1.2.1-1.2.3 x 2

1.2.5 After the final rinse, remove as much liquid as possible, leaving only worm pellet

2. PREPARE M9-5HT SOLUTION IMMEDIATELY PRIOR TO USE

2.1 Prepare 1000ul 10mM Serotonin in M9

2.2 Vortex or invert until solution is fully mixed.

3. DILUTE

3.1 Add 5 µL of RediStain™ Lipid Green reagent to 1000uL of 10mM 5HT

3.2 Pipette to mix

4. INCUBATE

4.1 Add diluted RediStain™ Lipid Green reagent -10mM 5HT solution to the freshly washed worms and incubate for 20-30 minutes at room temperature in the dark
## 5. WASH

| 5.1 | Remove RediStain™ Lipid Green reagent-10mM 5HT, leaving worms in a pellet at the bottom of the EpiTube |
| 5.2 | Rinse in freshly prepared 10mM 5HT in M9 buffer at least 3 times (see Step 1.2). Residual stain may obscure fluorescent signal. |

## 6. USE

| 6.1 | Load worms into ScreenChip, record EPG data, and image worms immediately |

## References