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Labeling HeLa Cells with Qdot® Wheat Germ Agglutinin Conjugate

Quantum Dot
invitrogen nanocrystal technologies

Molecular Probes™
invitrogen detection technologies

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PLEASE READ ENTIRE PROTOCOL BEFORE STARTING.
Additional information can be obtained from the product page on our website at www.invitrogen.com.

Materials

HeLa cells (ATCC, Cat # CCL-2)
Lab-Tek II Chamber slides (VWR, Cat # 70379-86)
37% formaldehyde (Sigma, Cat # F-1635)
PBS (Sigma. Cat # P 3563)
TBS (Dako, Cat # S3001)
IgG-free BSA (Jackson, Cat # 001-000-162)
Qdot Wheat Germ Agglutinin Conjugates (Cat # Q12021MP)
Hoechst 33342 (Molecular Probes, Cat # H3570)
Polyvinyl Alcohol Mounting Medium with DABCO (Sigma. Cat # 10981)

Notes:
1. Centrifuge at 5,000-10,000 x g, for 5-10 min. reserving the supernate, prior to using the material.
2. Some PAP pens can quench the signal from the quantum dots. If your protocol requires the use of a PAP pen, we recommend the ImmEdge Hydrophobic Barrier Pen (H-4000) from Vector Labs.

Procedure

All steps are conducted at room temperature unless specifically indicated. Slides should be placed in a moist chamber for the blocking and incubation steps.

1. Culture HeLa cells in the wells of chamber slides for 24 hours.
2. Rinse with PBS for 2 x 1 minutes.
3. Fix the cells for 10 minutes in 3.7% formaldehyde/PBS.
4. Wash the cells with TBS for 3 x 3 minutes.
5. Block with 2% BSA/TBS for 20 minutes.
6. Incubate with 5 nM Qdot 655 Wheat Germ Agglutinin Conjugate diluted in 2% BSA/TBS at 37 ^{0}C for 30 minutes.
7. Wash with TBS for 2 x 3 minutes.
8. Counterstain with 0.5 μg/ml Hoechst/TBS for 5 minutes.
9. Wash with TBS for 2 x 3 minutes.
10. Mount with Polyvinyl Alcohol Mounting Medium/DABCO.