

DAPI Fluoromount-G®

Cat. No.	Format	Size
0100-20	Clear liquid mounting medium	20 mL

Description

DAPI Fluoromount-G® is a water-soluble, 4',6-diamidino-2-phenylindole (DAPI) containing compound recommended for slides mounted after a staining procedure having an aqueous final step. When bound to DNA, DAPI fluoresces and is typically used as a nuclear/chromosomal counterstain. Since DAPI Fluoromount-G® is water-soluble, the coverslip may be removed by submerging the slide in a PBS solution until the coverslip is loosened. This mounting medium also provides a semi-permanent seal for storage of slide preparations.

Applications

IHC-FS ¹⁻⁹
IHC-PS ^{7,10-14}

ICC ¹⁵⁻⁴⁴
(F)ISH ^{3,36,43,45-47}

TUNEL ^{7,11,35,48}
PLA ^{49,50}

Migration ^{21,23,31,33}
Apop ³⁸

DAPI Fluoromount-G® is compatible with the following reagents –

Alexa Fluor® 488 ^{3,8,10,11,20,26,32,35}

Alexa Fluor® 546 ^{10,11,26,45,47}

Alexa Fluor® 555 ^{1,26}

Alexa Fluor® 568 ⁷

Alexa Fluor® 594 ^{4,35,41}

Alexa Fluor® 647 ^{8,35}

Alexa Fluor® 680 ¹⁰

BCIP/NBT ³

BODIPY® 493/503 ⁴¹

BODIPY® TR Glibenclamide ¹⁸

CdSe-ZnS Quantum Dots ^{27,42}

CellROX® Green ⁴⁴

CellTracker™ CM-Dil ²

Chromeo™ 642 ²

CY2 ¹³

CY3 ^{8,9,13,14}

CY3.5 ¹⁴

CY5 ^{13,14}

CY5.5 ⁵

DiO ^{22,27,42}

DsRed ¹⁹

Duolink® Red ^{49,50}

DyLight® 488 ³⁰

DyLight® 550 ³⁰

DyLight® 649 ²⁹

EGFP ^{4,25}

ER-Tracker™ Red ¹⁸

Ethidium Monoazide (EMA) ²⁸

Fluorescein (FITC) ^{1,3,6,7,11,14,15,17,26,30,36}

Fluoro-Jade® B ⁸

Fluoro-Jade® C ⁹

GFP ^{16,19,29,43}

H-Ruby ²⁰

Lissamine™ Rhodamine B ³⁴

LysoTracker® Green ²⁷

LysoTracker® Red ^{16,18,26}

mCherry ^{23,25,31}

mOrange ²⁵

mRFP ²⁵

MitoSOX® Red ⁴⁰

MitoTracker® Green ³⁴

MitoTracker® Red ^{18,39}

MitoTracker® Red CMXRos ^{17,24,44}

Nile Red ³²

Octadecyl Rhodamine B ²²

Orange Fluorescent Protein (OFP) ⁴³

Oregon Green® 488 ^{45,47}

Phycocerythrin (PE) ^{6,37}

Red Fluorescent Protein (RFP) ⁴³

Rhodamine (TRITC) ^{12,18}

Rhodamine Red™-X ⁷

Texas Red® ^{30,36,46}

Suggested Protocol

- Prepare samples and perform staining according to established procedures
- Following aqueous final step, remove excess liquid around the sample and add 1 drop (~50 µL) of DAPI Fluoromount-G® for an area of 22 x 22 mm
- Mount coverslip and remove excess mounting medium
- Allow to air dry for 5 minutes prior to analysis

Handling and Storage

- DAPI Fluoromount-G® is supplied as a 20 mL solution containing NaN₃ as preservative. Avoid exposure to light and store at ambient temperature.

Warning

Contains sodium azide. Please refer to product specific SDS.

References

1. Hagel C, Krasemann S, Löffler J, Püschen K, Magnus T, Glatzel M. Upregulation of Shiga toxin receptor CD77/Gb3 and interleukin-1β expression in the brain of EHEC patients with hemolytic uremic syndrome and neurologic symptoms. *Brain Pathol.* 2015;25:146-56. (IHC-FS, AF555, FITC)
2. Cubbon RM, Yuldasheva NY, Viswambharan H, Mercer BN, Baliga V, Stephen S, et al. Restoring Akt1 activity in outgrowth endothelial cells from South Asian men rescues vascular reparative potential. *Stem Cells.* 2014;32:2714-23. (IHC-FS, Chromeo™ 642, CellTracker™ CM-Dil)
3. Lopez-Ramirez MA, Wu D, Pryce G, Simpson JE, Reijerkerk A, King-Robson J, et al. MicroRNA-155 negatively affects blood-brain barrier function during neuroinflammation. *FASEB J.* 2014;28:2551-65. (IHC-FS, ISH, AF488, FITC, BCIP/NBT)
4. Weinger JG, Plaisted WC, Maciejewski SM, Lanier LL, Walsh CM, Lane TE. Activating receptor NKG2D targets RAE-1-expressing allogeneic neural precursor cells in a viral model of multiple sclerosis. *Stem Cells.* 2014;32:2690-701. (IHC-FS, AF594, EGFP)
5. Lee Y, Yoon HY, Shin JM, Saravanakumar G, Noh KH, Song K, et al. A polymeric conjugate foreignizing tumor cells for targeted immunotherapy in vivo. *J Control Release.* 2015;199:98-105. (IHC-FS, CY5.5)
6. Zhu M, Bakhrui P, Conley B, Nelson JS, Free M, Martin A, et al. Sex bias in CNS autoimmune disease mediated by androgen control of autoimmune regulator. *Nat Commun.* 2016;7:11350. (IHC-FS, FITC, PE)
7. Peled A, Sarig O, Samuelov L, Bertolini M, Ziv L, Weissglas-Volkov D, et al. Mutations in TSPEAR, encoding a regulator of Notch signaling, affect tooth and hair follicle morphogenesis. *PLoS Genet.* 2016;12(10):e1006369. (IHC-FS, IHC-PS, TUNEL, AF568, FITC, Rhodamine Red™-X)

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Corporate Offices: 160 Oxmoor Blvd • Birmingham, AL 35209 • USA **Mailing Address:** P.O. Box 26221 • Birmingham, AL 35260 • USA

Tel: 205.945.1774 • U.S. and Canada: 800.722.2255 • **Fax:** 205.945.8768

Email: info@southernbiotech.com • **Website:** www.southernbiotech.com

8. Kim TY, Yoshimoto T, Aoyama Y, Niimi K, Takahashi E. Analysis of the protective effects of a neuronal Cav2.1 calcium channel in brain injury. *Neuroscience*. 2016;313:110-21. (IHC-FS, AF488, AF647, CY3, Fluoro-Jade® B)
9. Kim TY, Niimi K, Takahashi E. Analysis of the protective effects of the α_2/δ subunit of voltage-gated Ca^{2+} channels in brain injury. *Brain Res.* 2017;1655:138-44. (IHC-FS, CY3, Fluoro-Jade® C)
10. Mizuiri S, Nishizawa Y, Hamanoue M, Hemmi H, Arita M, Shibuya K, et al. ACE2- Ang 1-7-Mas axis in human diabetic nephropathy. *J Nephrol Therapeutic*. 2012;S2. doi: 10.4172/2161-0959.S2-005. (IHC-PS, AF488, AF546, AF680)
11. Sakamoto K, Endo K, Suzuki T, Fujimura K, Kurauchi Y, Mori A, et al. P2X7 receptor antagonists protect against N-methyl-D-aspartic acid-induced neuronal injury in the rat retina. *Eur J Pharmacol.* 2015;756:52-8. (IHC-PS, TUNEL, AF488, AF546, FITC)
12. Pérez E, Martínez A, Teijón C, Olmo R, Teijón JM, Blanco MD. Improved antitumor effect of paclitaxel administered in vivo as pH and glutathione-sensitive nanohydrogels. *Int J Pharm.* 2015;492:10-19. (IHC-PS, TRITC)
13. Conrad E, Dai C, Spaeth J, Guo M, Cyphert HA, Scoville D, et al. The MAFB transcription factor impacts islet α -cell function in rodents and represents a unique signature of primate islet β -cells. *Am J Physiol Endocrinol Metab.* 2016;310:E91-102. (IHC-PS, CY2, CY3, CY5)
14. Bakdash G, Buschow SI, Gorris M, Halilovic A, Hatai SV, Sköld AE, et al. Expansion of a BDCA1 $^{+}$ CD14 $^{+}$ myeloid cell population in melanoma patients may attenuate the efficacy of dendritic cell vaccines. *Cancer Res.* 2016;76:4332-46. (IHC-PS, CY3, CY3.5, CY5, FITC)
15. Alhaddad A, Durieu C, Danielle G, Le Cam E, Malvy C, Treussart F, et al. Influence of the internalization pathway on the efficacy of siRNA delivery by cationic fluorescent nanodiamonds in the Ewing sarcoma cell model. *PLoS One.* 2012;7(12):e52207. (ICC, FITC, Fluorescent nanodiamonds)
16. Deliu E, Brailio GC, Mallianikaraman K, Wang H, Madesh M, Undieh AS, et al. Intracellular endothelin type B receptor-driven Ca^{2+} signal elicits nitric oxide production in endothelial cells. *J Biol Chem.* 2012;288:41023-31. (ICC, GFP, Lysotracker® Red)
17. Zhang F, Zhang L, Sun L, Meng X, Zhao Y, Jin X. Effects of fluid shear stress on expression of Smac/DIABLO in human umbilical vein endothelial cells. *Curr Ther Res Clin Exp.* 2013;74:36-40. (ICC, FITC, MitoTracker® Red CMXRos)
18. Aschenbrenner AC. *Dnajc22 - a new susceptibility gene for salt-sensitive hypertension* [dissertation]. Bonn (Germany): University of Bonn; 2013. (ICC, ER-Tracker™ Red/BODIPY® TR Glibenclamide, Lysotracker® Red, MitoTracker® Red, TRITC)
19. Deliu E, Brailio GC, Eguchi S, Hoffman NE, Rabinowitz JE, Tilley DG, et al. Direct evidence of intracrine angiotensin II signaling in neurons. *Am J Physiol Cell Physiol.* 2014;306:C736-44. (ICC, DsRed, GFP)
20. Desprès G, Zamaleeva A, Dardevet L, Tisseyre C, Magalhaes JG, Garner C, et al. H-Rubies, a new family of red emitting fluorescent pH sensors for living cells. *Chem Sci.* 2015;6:5928-37. (ICC, AF488, H-Ruby)
21. Dbouk HA, Weil LM, Perera GK, Dellinger MT, Pearson G, Brekken RA, et al. Actions of the protein kinase WNK1 on endothelial cells are differentially mediated by its substrate kinases OSR1 and SPAK. *Proc Natl Acad Sci USA.* 2014;111:15999-16004. (ICC, Migration assay)
22. Pohl MO, Edinger TO, Stertz S. Prolidase is required for early trafficking events during influenza A virus entry. *J Virol.* 2014;88:11271-83. (ICC, DiO, Octadecyl Rhodamine B)
23. Izraely S, Sagiv-Assif O, Klein A, Meshel T, Ben-Menachem S, Zaritsky A, et al. The metastatic microenvironment: Claudin-1 suppresses the malignant phenotype of melanoma brain metastasis. *Int J Cancer.* 2015;136:1296-307. (ICC, Migration assay, mCherry)
24. Miyamoto R, Otsuguro K, Yamaguchi S, Ito S. Contribution of cysteine aminotransferase and mercaptopyruvate sulfurtransferase to hydrogen sulfide production in peripheral neurons. *J Neurochem.* 2014;130:29-40. (ICC, MitoTracker® Red CMXRos)
25. Hsu T, Hsiao H, Wu P, Liu W, Lai M. Deltex1 promotes protein kinase Cθ degradation and sustains Casitas B-lineage lymphoma expression. *J Immunol.* 2014;193:1672-80. (ICC, EGFP, mCherry, mOrange, mRFP)
26. Aguirre M, Ojeda E, Zarate J, Puras G, Grijalvo S, Eritja R, et al. New insights into gene delivery to human neuronal precursor NT2 cells: a comparative study between lipoplexes, nioplexes, and polyplexes. *Mol Pharm.* 2015;12:4056-66. (ICC, AF488, AF546, AF555, FITC, Lysotracker® Red)
27. Maity AR, Stepansky D. Efficient subcellular targeting to the cell nucleus of quantum dots densely decorated with a nuclear localization sequence peptide. *ACS Appl Mater Interfaces.* 2016;8:2001-9. (ICC, DiO, Lysotracker® Green, CdSe-ZnS Quantum Dots)
28. Ruiz de Garibay AP, Solinis MA, del Pozo-Rodríguez A, Apaolaza PS, Shen JS, Rodríguez-Gascón A, et al. Solid lipid nanoparticles as non-viral vectors for gene transfection in a cell model of Fabry disease. *J Biomed Nanotechnol.* 2015;11:500-11. (ICC, EMA)
29. Song C, Wang J, Mo C, Mu S, Jiang X, Li X, et al. Use of ferritin expression, regulated by neural cell-specific promoters in human adipose tissue-derived mesenchymal stem cells, to monitor differentiation with magnetic resonance imaging in vitro. *PLoS One.* 2015;10(7):e0132480. (ICC, DyLight® 649, GFP)
30. Turpin J, Journo C, Ko NL, Sinet F, Carpenter A, Galloot A, et al. Discovery and characterization of auxiliary proteins encoded by type 3 simian T-cell lymphotropic viruses. *J Virol.* 2015;89:931-51. (ICC, DyLight® 488, DyLight® 549, FITC, Texas Red®)
31. Zubrilov I, Sagiv-Assif O, Izraely S, Meshel T, Ben-Menachem S, Ginat R, et al. Vemurafenib resistance selects for highly malignant brain and lung-metastasizing melanoma cells. *Cancer Lett.* 2015;361:86-96. (ICC, Migration assay, mCherry)
32. Torrecilla J, del Pozo-Rodríguez A, Apaolaza PS, Solinis MÁ, Rodríguez-Gascón A. Solid lipid nanoparticles as non-viral vector for the treatment of chronic hepatitis C by RNA interference. *Int J Pharm.* 2015;479:181-8. (ICC, AF488, Nile Red)
33. Nouri FS, Wang X, Hatefi A. Genetically engineered theranostic mesenchymal stem cells for the evaluation of the anticancer efficacy of enzyme/prodrug systems. *J Control Release.* 2015;200:179-87. (ICC, Migration assay)
34. Guzman-Villanueva D, Mendiola MR, Nguyen HX, Weissig V. Influence of triphenylphosphonium (TPP) cation hydrophobization with phospholipids on cellular toxicity and mitochondrial selectivity. *Sci Pharm Pharm Sci.* 2015;2(1):1-9. (ICC, Lissamine™ Rhodamine B, MitoTracker® Green)
35. Xu C, Zheng H, Loh HH, Law P. Morphine promotes astrocyte-preferential differentiation of mouse hippocampal progenitor cells via PKCε-dependent ERK activation and TRBP phosphorylation. *Stem Cells.* 2015;33:2762-72. (ICC, TUNEL, AF488, AF594, AF647)
36. Gil-Ranedo J, Hernando E, Riobolos L, Domínguez C, Kann M, Almendral JM. The mammalian cell cycle regulates parvovirus nuclear capsid assembly. *PLoS Pathog.* 2015;11(6):e1004920. (ICC, FISH, FITC, Texas Red®)
37. Sun Q, Li F, Li H, Chen R, Gu Y, Chen Y, et al. Amniotic fluid stem cells provide considerable advantages in epidermal regeneration: B7H4 creates a moderate inflammation microenvironment to promote wound repair. *Sci Rep.* 2015;5:11560. (ICC, PE)
38. Wang Z, Cheng X, Meng Q, Wang P, Shu B, Hu Q, et al. Azadirachtin-induced apoptosis involves lysosomal membrane permeabilization and cathepsin L release in Spodoptera frugiperda Sf9 cells. *Int J Biochem Cell Biol.* 2015;64:126-35. (ICC, Apop)
39. He W, Ye X, Huang X, Le W, You L, Wang L, et al. Hsp90 inhibitor, BIIB021, induces apoptosis and autophagy by regulating mTOR-Ulk1 pathway in imatinib-sensitive and -resistant chronic myeloid leukemia cells. *Int J Oncol.* 2016;48:1710-20. (ICC, MitoTracker® Red)
40. Cannavao L, Liccido D, Eguchi A, Elliott KJ, Traynham CJ, Ibbetts J, et al. Myocardial pathology induced by aldosterone is dependent on non-canonical activities of G protein-coupled receptor kinases. *Nat Commun.* 2016;7:10877. (ICC, MitoSOX® Red)
41. Tsukuda Y, Suda G, Tsunematsu S, Ito J, Sato F, Terashita K, et al. Anti-adipogenic and antiviral effects of l-carnitine on hepatitis C virus infection. *J Med Virol.* 2016 Sep 24. doi: 10.1002/jmv.24692. [Epub ahead of print]. (ICC, AF594, BODIPY® 493/503)
42. Maity AR, Stepansky D. Nuclear and perinuclear targeting efficiency of quantum dots depends on density of peptidic targeting residues on their surface. *J Control Release.* 2016 Dec 29. doi: 10.1016/j.conrel.2016.12.031. [Epub ahead of print]. (ICC, DiO, CdSe-ZnS Quantum Dots)
43. Tomimatsu K, Kokura K, Nishida T, Yoshimura Y, Kazuki Y, Narita M, et al. Multiple expression cassette exchange via TP901-1, R4, and Bxb1 integrase systems on a mouse artificial chromosome. *FEBS Open Bio.* 2016 Dec 3. doi:10.1002/2211-5463.12169. [Epub ahead of print]. (ICC, FISH, GFP, OFP, RFP)
44. Lomeli N, Di C, Czerniawski J, Guzowski JF, Bota DA. Cisplatin-induced mitochondrial dysfunction is associated with impaired cognitive function in rats. *Free Radic Biol Med.* 2017;102:274-86. (ICC, CellROX® Green, MitoTracker® Red CMXRos)
45. Gueroussou S, Tarnawska SP, Cui XA, Mahadevan K, Palazzo AF. Analysis of mRNA nuclear export kinetics in mammalian cells by microinjection. *J Vis Exp.* 2010;46:e2387. (FISH, AF546, Oregon Green® 488)
46. Makio T, Lapetina DL, Wozniak RW. Inheritance of yeast nuclear pore complexes requires the Nsp1p subcomplex. *J Cell Biol.* 2013;203:187-96. (FISH, Texas Red®)
47. Lee ES, Akef A, Mahadevan K, Palazzo AF. The consensus 5' splice site motif inhibits mRNA nuclear export. *PLoS One.* 2015;10(3):e0122743. (FISH, AF546, Oregon Green® 488)
48. Li S, Loganathan S, Korkmaz S, Radovits T, Hegedüs P, Zhou Y, et al. Transplantation of donor hearts after circulatory or brain death in a rat model. *J Surg Res.* 2015;195:315-24. (TUNEL)
49. de Laval B, Pawlikowska B, Barbieri D, Besnard-Guerin C, Cico A, Kumar R, et al. Thrombopoietin promotes NHEJ DNA repair in hematopoietic stem cells through specific activation of Erk and NF-κB pathways and their target, IEX-1. *Blood.* 2014;123:509-19. (Proximity ligation assay, DuoLink® Red)
50. Kläsener K, Maity PC, Hobelka E, Yang J, Reth M. B cell activation involves nanoscale receptor reorganizations and inside-out signaling by Syk. *Elife.* 2014;3:e02069. (Proximity ligation assay, DuoLink® Red)

Fluorount-Q® is a registered trademark of Southern Biotechnology Associates, Inc.
 Alexa Fluor®, BODIPY®, CellROX®, DyLight®, Lysotracker®, MitoSOX®, MitoTracker®, Oregon Green®, and Texas Red® are registered trademarks of Thermo Fisher Scientific, Inc. and its subsidiaries
 CellTracker™, ER-Tracker™, and Rhodamine Red™ are trademarks of Thermo Fisher Scientific, Inc. and its subsidiaries.
 Duolink® is a registered trademark of Sigma-Aldrich International GmbH.
 Lissamine™ is a trademark of Imperial Chemical Industries, Inc.
 Fluoro-Jade® is a registered trademark of Histo-Chem, Inc.
 Cy® is a registered trademark of GE Healthcare.
 Chromeo™ is a trademark of Active Motif.