

Materials List for:

# Synthesis of Wavelength-shifting DNA Hybridization Probes by Using Photostable Cyanine Dyes

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URL: <https://www.jove.com/video/54121>

DOI: [doi:10.3791/54121](https://doi.org/10.3791/54121)

## Materials

Name	Company	Catalog Number	Comments
<b>synthesis</b>			
4-Picoline	Sigma Aldrich	239615	
1,3-Diodopropane	Sigma Aldrich	238414	
Acetonitrile	Fisher Scientific	10660131	HPLC grade
Ethyl acetate	Fisher Scientific	10456870	technical grade
Sodium azide	Sigma Aldrich	71290	p.a. grade
Dichloromethane	Fisher Scientific	10626642	technical grade
Indole-3-carboxaldehyde; 98%	ABCR	AB112969	
Potassium carbonate, 99+%	Acros	424081000	
dimethylcarbonate	Sigma Aldrich	517127	
<i>N,N</i> -Dimethylformamide, 99.8%, Extra Dry over Molecular Sieve	Acros	348435000	
Sodium sulfate	Bernd Kraft	12623.46	
Ethanol, 99.5%	Acros	397690010	
Piperidine, 99%	Acros	147181000	
Diethylether	Fisher Scientific	10407830	technical grade
2-Phenylindole-3-carboxaldehyde; 97%	ABCR	AB125050	
4-Methylquinoline	ABCR	AB117222	
<b>DNA synthesis</b>			
Expedite 8909 Nucleic Acid Synthesizer	Applied Biosystems	-	
DMT-dA(bz) Phosphoramidite	Sigma Aldrich	A111081	
DMT-dT Phosphoramidite	Sigma Aldrich	T111081	
DMT-dG(dmf) Phosphoramidite	Sigma Aldrich	G11508	
DMT-dC(bz) Phosphoramidite	Sigma Aldrich	C11108	
Amidite Diluent for DNA synthesis	Sigma Aldrich	L010010	
Ultrapure Acetonitrile for DNA synthesis	Sigma Aldrich	L010400	
Cap A	Sigma Aldrich	L840000	
Cap B	Sigma Aldrich	L850000	
CPG dT Column 1.0 μmole	Proligo Reagents	T461010	
CPG dA(bz) Column 1.0 μmole	Proligo Reagents	A461010	
CPG dG(ib) Column 1.0 μmole	Proligo Reagents	G461010	

CPG dC(bz) Column 1.0 $\mu$ mole	Proligo Reagents	C461010	
ammonia (aqueous solution)	Fluka Analytical	318612	
centrifugal devices nanosep 0.45 $\mu$ m	Pall	ODGHPC34	
5-(Benzylthio)-1H-tetrazole (Activator)	Sigma Aldrich	75666	
2'-O-propargyl deoxyuridinephosphoramidite	Chem Genes	ANP-7754	
<b>workup</b>			
vacuum concentrator	Christ		
<b>clicking procedure</b>			
Tetrakis(acetonitrile)copper(I) hexafluorophosphate	Sigma Aldrich	346276	
Sodium acetate	Sigma Aldrich	S2889	
(+)-Sodium L-ascorbate	Sigma Aldrich	A7631	
EDTA disodium salt	Sigma Aldrich	E5134	
TBTA-ligand	-	-	synthesized according to a literature procedure <sup>1</sup>
<b>HPLC</b>			
HPLC-system	Shimadzu		
MALDI-Biflex-IV spectrometer	Bruker Daltonics		
LC-318 C18 column	Supelcosil via Sigma Aldrich	58368	
<b>determination of concentration</b>			
ND 1000 Spectrophotometer	nanodrop		
<b>sample preparation and spectroscopy</b>			
Cary 100 Bio	Varian		
Fluoromax-3 fluorimeter	Jobin-Yvon		
<sup>1</sup> R. Chan Timothy, R. Hilgraf, K. B. Sharpless, V. Fokin Valery, <i>Org Lett</i> 2004, <b>6</b> , 2853-2855.			