

Table 2 - Common Fluorochromes in Flow Cytometry
(ranked in order of peak Emission)

MAB Conjugates	Excitation	Emission	MW	Comments
Hydroxycoumarin	325	386	331	Succinimidyl ester
Methoxycoumarin	360	410	317	Succinimidyl ester
Cascade Blue	375 / 400	423	596	Hydrazide
Aminocoumarin	350	445	330	Succinimidyl ester
Alexa 340	408	460		
BODIPY-FL	503	512		
Fluorescein	495	519	389	FITC; pH sensitive
Lucifer yellow	425	528		
NBD	466	539	294	NBD-X
TRITC	547	572	444	TRITC
X-Rhodamine	570	576	548	XRITC
R-Phycoerythrin	480 / 565	578	240,000	PE
Lissamine Rhodamine B	570	590		
PE-Texas Red tandem	480 / 565	613		Red 613, ECD
Cy3	512 / 552	565 / 615		
Texas Red	589	615	625	Sulfonyl chloride
Alexa 594	589	615		
Allophycocyanin	650	660	104,000	(APC)
PE- Cy5.5 tandem	480 / 565 / 650	661		
Cy5	625-650	670		
PE-Cy5 tandum	480 / 565 / 650	670		aka Cychrome, R670, Tri-Color, Quantum Red
Peridinin chlorophyll protein	490	675		PerCP
TruRed	490,675	695		PerCP-Cy5.5 conjugate
Cy5.5	625-650	710		
PE-Cy7 tandem	480 / 565 / 743	767		
Cy7	743	767	1,001	
APC-Cy7 conjugates	650 / 755	767		PharRed

Nucleic Acid Probes	Excitation	Emission	MW	Comments
DAPI	343	455		A-T Selective
Hoechst 33258	343	478	624	A-T Selective
SYTOX Blue	431	480	400	DNA
Hoechst 33342	343	483	616	AT-selective
Hoechst 33342	343	483	616	A-T Selective
YOYO-1	491	509	1270.65	DNA
SYTOX Green	504	523	600	DNA
Thiazole Orange	510	530		
Acridine Orange	503	530 / 640		DNA / RNA
TOTO-1	509	533		Vital stain, TOTO:

				Cyanine Dimer
TO-PRO-1	509	533		TO-PRO: Cyanine Monomer
SYTOX Orange	547	570	500	DNA
Chromomycin A3	445	575		G-C Selective
Mithramycin	445	575		DNA
Propidium Iodide	536	617	668.4	DNA / PI
Ethidium Bromide	493	620	394.31	DNA / EB
Ethidium Monoazide				DNA / light bound
TOTO-3, TO-PRO-3	642	661		DNA
7-AAD	546	647		7-aminoactinomycin D / C-G Selective
LSD 751	543 / 590	712 / 607	471.98	DNA (543ex/712em), RNA (590ex/607em)

Cell Function Probes	Excitation	Emission	MW	Comments
Y66H	360	442		
EBFP	380	440		
Monochlorobimane	380	461	226	MCB / Glutathione probe
ECFP	434	477		
Y66W	436	485		
Indo-1	361/330	490/405	1,010	Intracellular Ca ²⁺ , AM ester
S65-A	471	504		
S65-C	479	507		
Y66F	360	508		
Green Fluorescent Protein-UV	385	508		GFP
EGFP	489	508		
Green Fluorescent Protein-WT	396,475	508,503		GFP
S65-L	484	510		
S65-T	488	511		
Calcein	496	517	623	PH>5
Fluo-3	506	526	855	Intracellular Ca ²⁺ AM ester, pH>6.0
EYFP	514	527		
DHR	505	534	346	Dihydrorhodamine 123, oxidized form,
DCFH	505	535	529	2',7'-Dichlorodihydrofluorescein, oxidized
Carboxyfluorescein Succinimidyl ester				CFSE, Cell proliferation
DsRed	558	583		
SNARF	548/579	587/635		pH 6/9