Table of Fluorochromes

This is a table of some characteristics of fluorochromes useful for flow cytometry or fluorescence microscopy. Within groups, roughly in order of excitation wavelength (families excepted). Peak excitation and emission wavelengths often vary depending on the environment in which the probe finds itself. Be sure to also look up the excitation and emission spectra for your dye of choice. Note that colors you might see with a capable browser are only a very rough approximation!

Probe	Ex (nm)	Em (nm)	MW	Notes				
Fluorescent Proteins								
				QY	BR	PS	Source	
Y66H	360	442						
Y66F	360	508						
EBFP	380	440		0.18	9		Addgene	monomer
EBFP2	383	448		0.56	18		Addgene	monomer
Azurite	383	447		0.55	14			monomer
GFPuv	385	508						
T-Sapphire	399	511		0.60	26	25		weak dimer
TagBFP	402	457	26k	0.63	33	++	Evrogen	monomer
Cerulean	433	475		0.62	27	36		weak dimer
mCFP	433	475		0.40	13	64		monomer
ECFP	434	477		0.15	3			
CyPet	435	477		0.51	18	59		weak dimer
Y66W	436	485						
dKeima-Red	440	616		0.31	8		MBL	dimer
mKeima-Red	440	620		0.24	3		MBL	monomer
TagCFP	458	480		0.57	29		Evrogen	dimer
AmCyan1	458	489		0.75	29		Clontech	tetramer
mTFP1 (Teal)	462	492		0.85	54			dimer
S65A	471	504						
Midoriishi-Cyan	472	495		0.9	25		MBL	dimer
Wild Type GFP	396,475	508	26k	0.77	16			
S65C	479	507						
TurboGFP	482	502	26 k	0.53	37		Evrogen	dimer
TagGFP	482	505	27k	0.59	34	++	Evrogen	monomer
TagGFP2	483	506	27k	0.6	34	++	Evrogen	monomer
AcGFP1	484	510	27k	0.82	27		Clontech	
S65L	484	510						

Emerald	487	509		0.68	39	0.69	Invitrogen	weak dimer
S65T	488	511						
EGFP	488	507	26k	0.60	34	174	Addgene	weak dimer
Azami-Green	492	505		0.74	41		MBL	tetramer (monomeric available)
ZsGreen1	493	505	105k	0.91	40		Clontech	tetramer
Dronpa-Green	503	518		0.85	81		MBL	photoswitchable
TagYFP	508	524	27k	0.62	47		Evrogen	monomer
EYFP	514	527	26k	0.61	51	60		weak dimer
Topaz	514	527		0.60	57			monomer
Venus	515	528		0.57	53	15		weak dimer
mCitrine	516	529		0.76	59	49		monomer
YPet	517	530		0.77	80	49		weak dimer
TurboYFP	525	538	26 k	0.53	56		Evrogen	dimer
PhiYFP	525	537	26.8 k	0.40	52	++	Evrogen	weak dimer
PhiYFP-m	525	537	26.8 k	0.39	48	++	Evrogen	monomer
ZsYellow1	529	539		0.65	13		Clontech	tetramer
mBanana	540	553		0.70	4		Clontech	monomer
Kusabira-Orange	548	559		0.60	31		MBL	monomer
mOrange	548	562		0.69	49	9		monomer
mOrange2	549	565		0.60	35		Clontech	monomer
mKO	548	559		0.60	31	122		monomer
TurboRFP	553	574	26 k	0.67	62		Evrogen	dimer
tdTomato	554	581		0.69	95	98	Clontech	tandem dimer
DsRed-Express2	554	591		0.42	15		Clontech	
TagRFP	555	584	27k	0.48	48		Evrogen	monomer
DsRed monomer	557	592	~28k	0.1	3.5	16	Clontech	monomer
DsRed2 ("RFP")	563	582	~110k	0.55	24		Clontech	
mStrawberry	574	596		0.29	26	15	Clontech	monomer
TurboFP602	574	602	26 k	0.35	26		Evrogen	dimer
AsRed2	576	592	~110k	0.21	13		Clontech	tetramer
mRFP1	584	607	~30k	0.25			Tsien lab	monomer
J-Red	584	610		0.20	8.8	13		dimer

mCherry	587	610		0.22	16	96	Clontech	monomer
HcRed1	588	618	~52k	0.03	0.6		Clontech	dimer
mKate2	588	633	26k	0.40	25	+	Evrogen	monomer
Katushka (TurboFP635)	588	635	26k	0.34	22	++	Evrogen	dimer
mKate (TagFP635)	588	635		0.30	15		Evrogen	monomer
TurboFP635	588	635	26 k	0.34	22		Evrogen	dimer
mPlum	590	649		0.10	4.1	53	Clontech	
mRaspberry	598	625		0.15	13		Clontech	monomer; faster photobleach than mPlum
mNeptune	600	650		0.20	13		Tsien Lab	monomer
E2-Crimson	611	646		0.23	29		Clontech	