

Wavelength Class	Protein	Source Lab	Organism	Ex (nm)	Em (nm)	Extinction coefficient per chain, M ⁻¹ cm ⁻¹	Fluorescence quantum yield	Brightness (εC ² QY) (mM ⁻¹ cm) ⁻¹	Brightness of fully mature protein (% of fluorescein)	f _{0.2} for bleach, sec	photostability (fold improvement over fluorescein)	pKa	t _{0.5} for maturation at 37°C	Oligomerization	References
Far-red	mPlum	Tsien	Discosoma sp.	590	649	41,000	0.10	4.1	5.9	53	7.3	<4.5	100 min	monomer	5
Red	mCherry	Tsien	Discosoma sp.	587	610	72,000	0.22	16	23	96	13.1	<4.5	15 min	monomer	4
	tdTomato	Tsien	Discosoma sp.	554	581	138,000	0.69	95	138	98	13.5	4.7	1 hr	tandem dimer	4
	mStrawberry	Tsien	Discosoma sp.	574	596	90,000	0.29	26	38	15	2.1	<4.5	50 min	monomer	4
	ΔRed	Evrogen	Unidentified Anemonia	584	610	44,000	0.20	8.8	13	13	1.8	5	ND	dimer	x
	ΔRed-Monomer	Clontech	Discosoma sp.	556	586	35,000	0.10	3.5	5.1	16	2.2	4.5	ND	monomer	y
Orange	mOrange	Tsien	Discosoma sp.	548	562	71,000	0.69	49	71	9.0	1.2	6.5	2.5 hr	monomer	4
	mKO	MBL Int.	Fungia concinna	548	559	51,600	0.60	31	45	122	16.7	5	4.5 hr	monomer	10
Yellow	mCitrine	Tsien	Aequorea victoria	516	529	77,000	0.76	59	85	49	6.7	5.7	ND	monomer	16, 23
	Venus	Miyawaki	Aequorea victoria	515	528	92,200	0.57	53	76	15	2.0	6	ND	weak dimer	1
	YPet	Daugherty	Aequorea victoria	517	530	104,000	0.77	80	116	49	6.7	5.6	ND	weak dimer	2
	EYFP	Invitrogen	Aequorea victoria	514	527	83,400	0.61	51	74	60	8.3	6.9	ND	weak dimer	18
Green	Emerald	Invitrogen	Aequorea victoria	487	509	57,500	0.68	39	57	0.69	0.1	6	ND	weak dimer	18
	EGFP	Clontech*	Aequorea victoria	488	507	56,000	0.60	34	49	174	23.9	6	ND	weak dimer	y
Cyan	CyPet	Daugherty	Aequorea victoria	435	477	35,000	0.51	18	26	59	8.1	5	ND	weak dimer	2
	mCFP	Tsien	Aequorea victoria	433	475	32,500	0.40	13	19	64	8.8	4.7	ND	monomer	23
	Cerulean	Piston	Aequorea victoria	433	475	43,000	0.62	27	39	36	5.0	4.7	ND	weak dimer	3
UV-excitable green	T-Sapphire	Griesbeck	Aequorea victoria	399	511	44,000	0.60	26	38	25	3.5	4.9	ND	weak dimer	6
Reference	fluorescein pH 8.4			495	519	75,000	0.92	69	100	7.3	1.0	6.4			

* No longer commercially available
x www.evrogen.com
y www.clontech.com
ND = not determined

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