

# Fluorescent Proteins Wavelength Maxima and Suggested Filter Combinations

Blue Fluorescent Proteins	Excitation max (nm)	Emission max (nm)	Extinction coefficient (€)	Ex Filter	Em Filter	Mirror (cut off)
Azurite	384	450	26,200	380/20	460/40	435
EBFP	383	445	29,000	380/20	460/40	435
EBFP2	383	448	32,000	380/20	460/40	435
mTagBFP	399	456	52,000	400/30	460/40	435
Y66H	382	459	25,000	380/20	460/40	435
Cyan Fluorescent Proteins	Excitation max (nm)	Emission max (nm)	Extinction coefficient (€)	Ex Filter	Em Filter	Mirror (cut off)
ECFP	439	476	32,500	420/50	485/20	455
AmCyan1	458	489	44,000	440/40	500/27	455
Cerulean	433	475	43,000	420/50	485/20	455
CyPet	435	477	35,000	420/50	485/20	455
mECFP	433	475	32,500	420/50	485/20	455
Midori-ishi Cyan	472	495	27,300	440/40	500/27	455
mTFP1 (Teal)	462	492	64,000	440/40	500/27	455
TagCFP	458	480	37,000	440/30	485/20	455
Green Fluorescent Proteins	Excitation max (nm)	Emission max (nm)	Extinction coefficient (€)	Ex Filter	Em Filter	Mirror (cut off)
AcGFP	480	505	50,000	460/40	516/20	510
Azami Green	492	505	55,000	485/20	516/20	510
EGFP (S65T/F64L)	484	507	56,000	485/20	516/20	510
Emerald	487	509	57,500	485/20	516/20	510
GFP (wt)	395	509	21,000	395/25	508/20	435
	475	509	21,000	460/40	516/20	510
GFP (uv)	395	509	21,000	395/25	508/20	435
GFP-S65T	488	509	56,000	485/20	516/20	510
mWasabi	493	509	70,000	485/20	516/20	510
Stemmer	395	509	27,000	395/25	508/20	435
sfGFP (Superfolder GFP)	485	510	83,300	485/20	516/20	510
TagGFP	482	505	58,200	485/20	510	510
T-Sapphire	399	511	44,000	395/25	508/20	435
TurboGFP	482	502	70,000	475/20	508/20	510
ZsGreen	493	505	43,000	485/20	516/20	510
Yellow Fluorescent Proteins	Excitation max (nm)	Emission max (nm)	Extinction coefficient (€)	Ex Filter	Em Filter	Mirror (cut off)
EYFP	514	527	83,400	500/27	540/25	525
mBanana	540	553	6,000	528/20	560/15	545
mCitrine	516	529	77,000	500/27	540/25	525
PhiYFP	525	537	124,000	516/20	550/10	525
TagYFP	508	524	64,000	485/40	540/25	525
Topaz	514	527	94,500	500/27	540/25	525
Venus	515	528	92,200	500/27	540/25	525
YPet	517	530	104,000	500/27	540/25	525
ZsYellow1	529	539	20,200	516/20	550/10	525
Orange Fluorescent Proteins	Excitation max (nm)	Emission max (nm)	Extinction coefficient (€)	Ex Filter	Em Filter	Mirror (cut off)
DsRed/RFP	558	583	75,000	540/35	590/20	570
DsRed2	563	582	43,800	540/35	590/20	570
DsRed-Express	555	584	38,000	540/35	590/20	570
DsRed-Monomer	556	586	35,000	540/35	590/20	570
Tomato	554	581	69,000	540/35	590/20	570
tdTomato (tandem dimer)	554	581	138,000	540/35	590/20	570
Kusabira Orange	548	559	51,600	530/25	570/10	555
mKO2 (Kusabira Orange2)	551	565	63,800	540/25	575/10	555
mOrange	548	562	71,000	530/25	570/10	555
mOrange2	549	565	58,000	540/25	575/10	555
mTangerine	568	585	38,000	540/35	600/40	570
TagRFP	555	584	100,000	540/35	590/20	570
TagRFP-T	555	584	81,000	540/35	590/20	570
Red Fluorescent Proteins	Excitation max (nm)	Emission max (nm)	Extinction coefficient (€)	Ex Filter	Em Filter	Mirror (cut off)
AQ143	595	655	90,000	590/20	645/40	595
AsRed2	576	592	56,200	560/20	596/15	570
dKeima-Tandem	440	620	28,800	440/40	620/40	550
HcRed1	588	618	20,000	590/20	635/32	595
tHcRed (tandem)	590	637	160,000	590/20	645/40	595
JRed	584	610	44,000	575/15	620/15	595
mApple	568	592	75,000	540/35	600/40	595
mCherry	587	610	72,000	585/10	620/15	595
mPlum	590	649	41,000	590/20	645/40	595
mRaspberry	598	625	86,000	590/20	645/40	595
mRFP1	584	607	50,000	575/15	610/10	595
mRuby	558	605	112,000	540/35	620/40	595
mStrawberry	574	596	90,000	560/20	620/40	595

**Errata Notice**  
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