

Click the name of a light cube to view the list of compatible dyes

Commonly used light cubes

DAPI
TagBFP
CFP
GFP
YFP
RFP
Texas Red®
Cy®5
Cy®5.5
Cy®7

Specialty light cubes

CFP-YFP
A0
A0red
Qdot® 525
Qdot® 545
Qdot® 565
Qdot® 585
Qdot® 605
Qdot® 625
Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

EVOS® Light Cube selection guide

EVOS® Light Cubes integrate LEDs and high-performance filters in a novel illumination system that delivers precise control, minimal maintenance, and exceptional reliability. Use the selection guide below to choose the light cube that best matches your dye. Dyes indicated in **bold** have excellent spectral match.

Light cube	Dye	Abs peak	Em peak	Spectral match
DAPI (357/44 Ex; 447/60 Em)	1,8-ANS	372	480	Excellent
	4-methylumbelliferone	360	440	Excellent
	7-amino-4-methylcoumarin (AMC)	351	430	Excellent
	7-hydroxy-4-methylcoumarin	360	449	Excellent
	ABQ	344	445	Excellent
	Acridine	362	462	Excellent
	Alexa Fluor® 350	346	442	Excellent
	Alexa Fluor® 405	401	421	Fair
	AMCA	345	425	Excellent
	AMCA-X	353	442	Excellent
	BFP	382	448	Excellent
	CellTrace™ Calcein Blue	373	440	Excellent
	CellTrace™ Calcein Violet	401	451	Good
	Calcofluor White	350	440	Excellent
	Cascade Blue®	377	420	Good
	Dansyl	335	525	Fair
	DAPI	345	455	Excellent
	DiFMU (pH 9.0)	357	450	Excellent
	DyLight® 350	353	432	Excellent
	ER-Tracker™ Blue-White DPX	371	554	Fair
	Fast Blue	360	440	Excellent
	FluoSpheres® Blue	356	412	Excellent
	Hoechst® 3358	345	487	Excellent
	Hoechst® 33342	347	483	Excellent
	LIVE/DEAD® Fixable Blue Dead Cell Stain	344	442	Excellent
	LysoSensor™ Blue	374	424	Excellent
	LysoTracker® Blue	373	422	Excellent
	Marina Blue®	365	460	Excellent
	Methoxycoumarin	360	410	Good
	Monochlorobimane (mBCI)	380	461	Good
NucBlue® Fixed Cell Stain	345	455	Excellent	
NucBlue® Live Cell Stain	347	483	Excellent	
Pacific Blue™	405	455	Fair	
PBFI	360	420	Good	
Phorwite AR	360	430	Good	
Quinine sulfate	349	461	Excellent	

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Qdot® 625
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Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
DAPI (357/44 Ex; 447/60 Em)	sgBFP™ (Super Glow BFP)	387	450	Good
	SITS	365	460	Good
	SpectrumBlue	405	449	Excellent
	Thioflavin TCN	350	460	Excellent
	Thiolyte®	378	483	Good
	True Blue	365	425	Excellent
	Uvitex SFC	365	435	Excellent
	Y66H	360	442	Excellent

Light cube	Dye	Abs peak	Em peak	Spectral match
TagBFP (390/18 Ex; 447/60 Em)	Alexa Fluor® 405	401	421	Excellent
	DyLight 405	400	420	Excellent
	BFP	382	448	Good
	Cascade Blue®	400	420	Excellent
	Pacific Blue™	410	455	Excellent
	SpectrumBlue	400	450	Excellent
	TagBFP	402	457	Excellent

Light cube	Dye	Abs peak	Em peak	Spectral match
CFP (445/45 Ex; 510/42 Em)	Auramine O	445	500	Excellent
	CellLights® CFP	434	477	Excellent
	ECFP	434	477	Excellent
	Evans Blue	460	515	Excellent
	Lucifer yellow	428	544	Excellent

Light cube	Dye	Abs peak	Em peak	Spectral match
GFP (470/22 Ex; 510/42 Em)	5-Carboxyfluorescein (5-FAM)	492	518	Good
	Acridine orange + DNA	500	526	Good
	Acridine yellow	470	550	Excellent
	ActinGreen™ 488 (Alexa Fluor® 488 phalloidin)	496	518	Excellent
	Alexa Fluor® 430	432	540	Good
	Alexa Fluor® 488	496	518	Excellent
	ATTO 465	453	507	Excellent
	Auramine	460	540	Excellent
	Aurophosphine	470	540	Excellent
	BCECF	499	540	Good
	BODIPY® 492/515	490	540	Good
	BODIPY® 505/515	502	540	Good
	BODIPY® FL	502	540	Good
	BTC	464	540	Excellent
	Calcein	494	540	Good
	Calcium Green™-1	506	540	Fair

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Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
GFP (470/22 Ex; 510/42 Em)	Catskill Green 540	482	540	Excellent
	CellLights® GFP	488	507	Excellent
	CellEvent™ Caspase-3/7 Green	488	507	Excellent
	CellTracker™ Green	490	540	Excellent
	CellROX® Green	485	520	Excellent
	CFDA	494	540	Good
	CFP	434	540	Fair
	Click-iT® EdU Alexa Fluor® 488	496	518	Excellent
	Cy®2	492	540	Excellent
	CyQUANT® Direct (CyQUANT® GR)	500	540	Excellent
	DAF-FM	493	540	Good
	DiO (Vybrant® DiO)	489	506	Excellent
	Diversa Green-FP	484	507	Excellent
	DyLight® 488	493	518	Excellent
	Emerald Green	490	540	Good
	Evans Blue	460	515	Good
	FITC (fluorescein)	492	520	Good
	Fluo-3	506	540	Good
	Fluo-4	494	540	Good
	Fluoro-Emerald	494	518	Good
	Fluoro-Jade® B	480	525	Excellent
	Fluor-X	494	520	Good
	FluoSpheres® Yellow-Green	501	513	Good
	GFP (EGFP)	488	507	Excellent
	H ₂ DCFDA (H ₂ -DCF, DCFR)	504	540	Good
	HCS LipidTox™ Green	498	506	Fair
	HPTS (Solvent Green 7)	455	510	Excellent
	LIVE/DEAD® Fixable Green	498	526	Good
	Lucifer yellow	423	543	Fair
	LysoSensor™ Green	448	503	Excellent
	LysoTracker® Green	504	511	Good
	Magnesium Green™	506	530	Fair
	mHoneydew	478	561	Excellent
	MitoTracker® Green FM	490	512	Excellent
	NBD amine	450	530	Excellent
	NBD-X	467	538	Excellent
Neurotrace® 500/525 Green	497	524	Excellent	
Nitrobenzoxadiazole	465	510	Excellent	
NucGreen™ Dead Cell Stain	504	523	Good	
Oregon Green® 488	498	524	Good	
Oregon Green® 514	512	532	Fair	
pHrodo™ Green	509	533	Good	
Premo™ FUCCI Cell Cycle Sensor (S/G ₂ /M phases)	474	509	Excellent	
Qdot® 525	UV	525	Fair	

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Qdot® 605
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Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
GFP (470/22 Ex; 510/42 Em)	Qdot® 545	UV	543	Fair
	Quant-iT™ PicoGreen®	502	522	Good
	Rhodamine 110	496	520	Good
	Rhodamine 123	507	529	Fair
	Rhodamine Green™	497	523	Good
	Rhodol Green™	496	523	Good
	rsGFP (red-shifted GFP, S65T)	498	516	Good
	S65C	479	507	Good
	S65L	484	510	Good
	S65T	488	511	Good
	sgGFP™ (Super Glow GFP)	474	509	Excellent
	Sodium Green™	506	532	Good
	SpectrumGreen	498	522	Good
	Surf Green EX	469	526	Excellent
	SYBR® Gold	495	439	Fair
	SYBR® Green I	497	521	Good
	SYBR® Safe	507	524	Good
	SYTO® 11	506	525	Fair
	SYTO® 13	487	505	Good
	SYTO® 16	490	520	Excellent
	SYTO® 45	452	484	Good
	SYTO® 9	482	500	Excellent
	SYTO® RNASelect™	503	527	Good
	SYTOX® Green	504	523	Good
	TET™	520	541	Fair
	TO-PRO®-1	515	530	Fair
	TOTO®-1	513	531	Fair
	Vybrant® DyeCycle™ Green	505	532	Good
	wtGFP (wild type GFP, non-UV excitation)	475	509	Excellent
	YFP	512	529	Fair
YO-PRO®-1	491	507	Excellent	
YOYO®-1	491	509	Excellent	

Light cube	Dye	Abs peak	Em peak	Spectral match
YFP (500/24 Ex; 524/27 Em)	Acridine orange + DNA	500	526	Good
	EYFP	514	527	Excellent

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Cy®7

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A0red
Qdot® 525
Qdot® 545
Qdot® 565
Qdot® 585
Qdot® 605
Qdot® 625
Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
RFP (531/40 Ex; 593/40 Em)	ActinRed™ 555 (rhodamine phalloidin)	540	565	Excellent
	Alexa Fluor® 532	532	554	Fair
	Alexa Fluor® 546	561	572	Good
	Alexa Fluor® 555	555	565	Excellent
	Amplex® Red	571	583	Excellent
	Amplex® UltraRed	568	583	Excellent
	BOBO™ -3	570	602	Good
	BODIPY® TMR	544	569	Excellent
	Calcium Orange™	549	575	Excellent
	Carboxy SNARF® -1	548	587	Excellent
	CellLights® RFP	552	585	Excellent
	CellMask™ Orange	556	571	Excellent
	CellROX® Orange	545	565	Excellent
	CellTracker™ Orange	547	575	Excellent
	CellTracker™ Red	585	612	Good
	Cy®3	552	570	Excellent
	Cy®3.5	579	597	Good
	Dil (CellTracker™ Dil)	551	568	Excellent
	DsRed Monomer	556	586	Good
	DsRed2	563	582	Fair
	DsRed-Express	557	579	Good
	dTomato	554	581	Good
	DyLight® 594	562	576	Good
	Eosin	524	545	Fair
	Ethidium bromide	521	602	Good
	Ethidium homodimer-1 (EthD-1)	530	618	Excellent
	FluoSpheres® Orange	539	560	Good
	FocalCheck™ Double Orange	540	555	Good
	HCS LipidTox™ Red	582	615	Fair
	HEX™	533	558	Excellent
	JOJO™ -1	529	545	Good
	LIVE/DEAD® Fixable Red	593	613	Fair
	mBanana	540	553	Good
	MitoTracker® Orange CMTMRos	551	576	Excellent
MitoTracker® Orange CM-H ₂ TMRos	551	576	Excellent	
MitoTracker® Red CMXRos	578	599	Good	
MitoTracker® Red CM-H ₂ XRos	578	599	Good	
mOrange	548	568	Good	
mTangerine	568	585	Good	
Nile Red	551	636	Good	
OFP	546	568	Excellent	
pHrodo™	559	586	Excellent	
Phycoerythrin (PE, R-phycoerythrin)	567	576	Excellent	
POPO™ -3	532	573	Excellent	

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Cy®7

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A0red
Qdot® 525
Qdot® 545
Qdot® 565
Qdot® 585
Qdot® 605
Qdot® 625
Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
RFP (531/40 Ex; 593/40 Em)	PO-PRO™-3	539	570	Excellent
	Premo™ FUCCI Cell Cycle Sensor (G ₁ phase)	555	584	Excellent
	Propidium iodide (PI)	530	618	Good
	Resorufin	570	585	Excellent
	RFP	552	585	Excellent
	Rhod™-2	551	576	Excellent
	Rhodamine phalloidin	557	576	Excellent
	Rhodamine Red	560	580	Good
	ROX™ (6-ROX)	568	595	Good
	SpectrumOrange	559	588	Excellent
	Sulforhodamine 101	578	593	Good
	SYTOX® Orange	567	570	Excellent
	TagRFP	555	584	Excellent
	TAMRA™	565	580	Excellent
	TET™	521	542	Fair
	Tetramethylrhodamine (TRITC)	555	580	Excellent
TurboRFP	553	574	Excellent	
Vybrant® DyeCycle™ Orange	518	562	Excellent	
X-Rhod-1	570	576	Good	

Light cube	Dye	Abs peak	Em peak	Spectral match
Texas Red® (585/29 Ex; 624/40 Em)	2-dodecylresorufin	582	595	Good
	5-ROX	577	603	Excellent
	7-AAD	549	644	Good
	Alexa Fluor® 568	578	603	Good
	Alexa Fluor® 594	590	618	Excellent
	Alexa Fluor® 610	610	629	Good
	Amplex® Red	570	583	Fair
	Amplex® Ultra Red	567	582	Fair
	BOBO™-3	571	606	Good
	BODIPY® 630/650-X	625	641	Fair
	BODIPY® TR-X	588	621	Excellent
	Calcium Crimson™	589	608	Excellent
	CellTrace™ BODIPY® TR methyl ester	597	625	Excellent
	CellTrace™ calcein red-orange	575	592	Fair
	CellTracker™ Red CMTPX	584	613	Excellent
	Click-iT® Alexa Fluor® 594	590	618	Excellent
	Cy®3.5	581	597	Good
	DsRed2	563	588	Fair
	DyLight® 594	593	618	Excellent
	FluoSpheres® Crimson microspheres	620	646	Good
FluoSpheres® Red microspheres	577	608	Excellent	
HCS CellMask™ Red stain	587	614	Excellent	
HCS LipidTOX™ Red	582	615	Excellent	

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Cy®7

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A0red
Qdot® 525
Qdot® 545
Qdot® 565
Qdot® 585
Qdot® 605
Qdot® 625
Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
Texas Red® (585/29 Ex; 624/40 Em)	HCS NuclearMask™ Red	624	644	Fair
	HcRed	594	649	Fair
	Katushka (Turbo FP635)	588	635	Excellent
	LIVE/DEAD® Fixable Red Dead Cell stain	595	613	Excellent
	LysoTracker® Red	573	592	Good
	Magic Red™	570	630	Good
	MitoTracker® Red CMXRos	578	597	Excellent
	mCherry	587	615	Excellent
	mKate	588	635	Excellent
	mPlum	590	649	Fair
	mRaspberry	598	625	Good
	Nile Red phospholipid	551	638	Excellent
	pHrodo™ Red	559	587	Fair
	ReAsH (TC-ReAsH™)	593	608	Excellent
	Rhodamine Red-X	572	591	Good
	Sulforhodamine 101	577	593	Good
	SYTO® 17	620	635	Good
	SYTO® 59	622	645	Fair
	SYTO® 61	619	649	Fair
	SYTOX® AADvanced™ dead cell stain	546	647	Good
Texas Red®	592	615	Excellent	
X-rhod-1	579	602	Excellent	
YO-PRO®-3	612	628	Good	
YOYO®-3	612	631	Good	

Light cube	Dye	Abs peak	Em peak	Spectral match
Cy®5 (628/40 Ex; 692/40 Em)	Alexa Fluor® 633	631	650	Good
	Alexa Fluor® 635	634	647	Fair
	Alexa Fluor® 647	650	670	Good
	Alexa Fluor® 660	663	691	Excellent
	Alexa Fluor® 680	679	704	Good
	APC (allophycocyanin)	651	660	Good
	BODIPY® 630/650-X	626	641	Fair
	BODIPY® 650/665	647	665	Good
	Carboxynaphthofluorescein	600	674	Excellent
	CellMask™ Deep Red plasma membrane stain	658	676	Good
	CellROX™ Deep Red	640	665	Good
	Click-iT® Alexa Fluor® 647	650	670	Good
	Cy®5	648	666	Good
	Cy®5.5	678	696	Good
	DDAO	648	658	Good
	DiD (Vybrant® DiD)	645	670	Excellent
	DRAQ5®	650	680	Excellent

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Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
Cy®5 (628/40 Ex; 692/40 Em)	DyLight® 633	638	658	Good
	DyLight® 649	654	673	Good
	FluoSpheres® crimson microspheres	621	646	Good
	FluoSpheres® dark red microspheres	657	683	Excellent
	FocalCheck® FarRed	669	692	Good
	FxCycle™ Far Red	641	657	Good
	HCS CellMask™ Deep Red stain	649	670	Excellent
	HCS LipidTOX™ Deep Red	634	652	Good
	HCS NuclearMask™ Deep Red	635	687	Excellent
	HCS NuclearMask™ Red	622	644	Good
	LIVE/DEAD Fixable Far Red	650	665	Excellent
	Lysotracker® Deep Red	647	668	Good
	MitoTracker® Deep Red FM	641	661	Good
	NucRed™ Dead 647	642	657	Good
	NucRed™ Live 647	638	686	Excellent
	SYTO® 17	619	638	Fair
	SYTO® 59	621	644	Good
	SYTO® 60	649	681	Excellent
	SYTO® 62	650	681	Excellent
	SYTOX® Red	640	658	Good
TO-PRO®-3	642	657	Good	
TOTO®-3	642	661	Good	
Vybrant® DyeCycle™ Ruby	638	686	Excellent	

Light cube	Dye	Abs peak	Em peak	Spectral match
Cy®5.5 (655/46 Ex; 794/160 Em)	Alexa Fluor® 660	663	691	Fair
	Alexa Fluor® 680	679	702	Good
	Alexa Fluor® 700	696	719	Good
	ATTO 635	635	658	Fair
	ATTO 647	644	670	Fair
	ATTO 655	663	683	Fair
	ATTO 680	680	700	Good
	ATTO 700	699	719	Fair
	Cy®5.5	672	690	Good
	DY-675	675	699	Good
	DyLight® 680	676	705	Good
	FluoSpheres® Dark Red fluorescent microspheres	656	683	Fair
	HiLyte Fluor™ 680	688	702	Good
	IRDye 680 NHS Ester	683	710	Fair
	IRDye 700 Phosphoramidite	691	699	Fair
	Qdot® 705 Nanocrystals	300	702	Fair
	Quasa 705	688	706	Fair
	SYTO® 60	650	681	Fair

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Qdot® 800
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Notes: Near-infrared dyes (e.g., IRDye® 800CW) work best with low-magnification, high-NA objectives to maximize detection sensitivity.

Light cube	Dye	Abs peak	Em peak	Spectral match
Cy®7 (710/40 Ex; 775/46 Em)	CellVue® NIR780	743	776	Excellent
	Cy®7	745	766	Excellent
	DyLight® 750	752	778	Excellent
	Indocyanine green	768	807	Fair
	IRDye® 800CW	774	789	Good
	XenoLight™ CF770	770	797	Excellent

Notes: CFP-YFP FRET control. CFP excitation coupled with a YFP emission filter. For FRET sensitized-emission donor-acceptor bleedthrough measurements. Requires CFP and YFP light cubes for CFP-YFP FRET experiments.

Light cube	Dye	Abs peak	Em peak	Spectral match
CFP/YFP (445/45 Ex; 542/27 Em)	CFP	434	477	Control YFP emission

Notes: Acridine orange, longpass emission. To visualize acridine orange in green and orange/red emission wavelengths, we recommend using this light cube with the EVOS® FL color cell imaging system. The A0 cube passes simultaneous green, yellow, and red fluorescence, which requires color camera detection. Works well with other fluorophores listed below in either monochrome or color camera EVOS® FL cell imaging systems, provided the sample is labeled with only one dye.

Light cube	Dye	Abs peak	Em peak	Spectral match
A0 (442/46 Ex; 488LP Em)	Acridine orange + RNA	460	650	Excellent
	Acridine orange + DNA	500	526	Good
	Alexa Fluor® 430	434	540	Excellent
	AmCyan	548	489	Excellent
	Auramine O	460	550	Excellent
	CTC formazan	450	630	Excellent
	Di-8 ANEPPS	468	635	Excellent
	DiA (FAST DiA™)	491	613	Excellent
	Lucifer yellow	428	544	Excellent
	LysoSensor™ Green (pH 5)	442	505	Excellent
PerCP	488	675	Good	

Notes: Acridine orange, red emission. Can be used with either EVOS® FL color or EVOS® FL monochrome cell imaging systems. Detects red fluorescence, which can be visualized with either a color or a monochrome camera.

Light cube	Dye	Abs peak	Em peak	Spectral match
A0red (442/46 Ex; 628/32 Em)	Acridine orange + RNA	460	650	Excellent
	Acridine orange + DNA	500	526	Poor†
	CTC formazan	450	630	Excellent
	Di-8 ANEPPS	468	635	Good
	DiA	491	613	Good
	Fura Red™ (high Ca²⁺)	436	637	Excellent
	Lucifer yellow	428	544	Fair

† GFP or YFP light cube recommended.

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Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 525 (525/15 Em)	Acridine Orange (+DNA)	500	526	Fair
	Alexa Fluor® 430	432	540	Excellent
	Aiexa Fluor® 488	496	518	Fair
	BCECF (pH 5.2)	499	540	Excellent
	BOBO™-1	570	602	Good
	Calcein	494	540	Good
	Carboxyfluorescein (5-FAM)	492	518	Fair
	CellTracker™ Green CMFDA	490	540	Good
	CellTracker™ Violet BMQC	415	516	Good
	CFP	434	540	Good
	Cy2	492	540	Good
	CyQUANT® Direct	500	540	Fair
	DAF-FM	493	540	Fair
	DiA	456	590	Fair
	DiO	484	501	Good
	F2N12S	405	530 585	Good
	FITC	492	520	Good
	Fluo-4	494	540	Fair
	FM® 1-43	510	626	Fair
	GFP	488	507	Good
	HCS CellMask™ Green	493	516	Fair
	LIVE/DEAD® Fixable Green	498	506	Fair
	LIVE/DEAD® Fixable Yellow	405	575	Fair
	Lucifer Yellow	423	543	Excellent
	LysoSensor™ Green	448	503	Excellent
	LysoSensor™ Yellow/Blue (pH 8.0)	329	440	Fair
	LysoTracker® Green	504	511	Fair
	MitoTracker® Green FM	490	512	Good
	NBD-X	467	538	Excellent
	NeuroTrace® 500/525 Nissl stain	497	524	Good
	Oregon Green® 488	498	524	Fair
	Pacific Orange™	440	551	Fair
	POPO™-1	434	456	Fair
	PO-PRO™-1	435	455	Fair
	Qdot® 525	UV	525	Excellent
	Rhodamine 110	496	520	Fair
Rhodamine Green	497	523	Fair	
SYBR® Gold	495	539	Fair	
SYBR® Green I	497	521	Fair	
SYTO® 9	482	500	Good	
SYTO® 13	487	505	Good	
SYTO® 16	490	520	Good	
SYTO® 45	452	484	Good	
SYTO® RNASelect™	503	527	Fair	
SYTOX® Blue	444	480	Fair	

Click the name of a light cube to view the list of compatible dyes

Commonly used light cubes

DAPI
TagBFP
CFP
GFP
YFP
RFP
Texas Red®
Cy®5
Cy®5.5
Cy®7

Specialty light cubes

CFP-YFP
A0
A0red
Qdot® 525
Qdot® 545
Qdot® 565
Qdot® 585
Qdot® 605
Qdot® 625
Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 525 (525/15 Em)	ThiolTracker™ Violet	405	526	Good
	YO-PRO®-1	491	507	Fair
	YOYO®-1	491	509	Good

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 545 (545/22 Em)	Alexa Fluor® 430	432	540	Excellent
	BCECF (pH 5.2)	499	540	Excellent
	BOBO™-1	570	602	Fair
	Calcein	494	540	Fair
	CellTracker™ Green CMFDA	490	540	Fair
	CellTracker™ Violet BMQC	415	516	Good
	CFP	434	540	Good
	Cy2	492	540	Good
	CyQUANT® Direct	500	540	Fair
	DiA	456	590	Good
	DiO	484	501	Fair
	F2N12S	405	530 585	Excellent
	FITC	492	520	Fair
	FM® 1-43	510	626	Good
	GFP	488	507	Fair
	LIVE/DEAD® Fixable Yellow	405	575	Good
	Lucifer Yellow	423	543	Excellent
	LysoSensor™ Green	448	503	Good
	LysoSensor™ Yellow/Blue (pH 8.0)	329	440	Fair
	MitoTracker® Green FM	490	512	Fair
	NBD-X	467	538	Excellent
	NeuroTrace® 500/525 Nissl stain	497	524	Fair
	Oregon Green® 488	498	524	Fair
	Pacific Orange™	440	551	Good
	Qdot® 545	UV	545	Excellent
	Rhodamine 110	496	520	Fair
	Rhodamine Green	497	523	Fair
	SYBR® Gold	495	539	Fair
	SYBR® Green I	497	521	Fair
	SYTO® 9	482	500	Good
SYTO® 13	487	505	Fair	
SYTO® 16	490	520	Fair	
SYTO® 45	452	484	Fair	
SYTO® RNASelect™	503	527	Fair	
ThiolTracker™ Violet	405	526	Good	
YO-PRO®-1	491	507	Fair	
YOYO®-1	491	509	Good	

Click the name of a light cube to view the list of compatible dyes

Commonly used light cubes

DAPI
TagBFP
CFP
GFP
YFP
RFP
Texas Red®
Cy®5
Cy®5.5
Cy®7

Specialty light cubes

CFP-YFP
A0
A0red
Qdot® 525
Qdot® 545
Qdot® 565
Qdot® 585
Qdot® 605
Qdot® 625
Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 565 (567/16 Em)	Alexa Fluor® 430	432	540	Good
	BCECF (pH 5.2)	499	540	Good
	CellTracker™ Violet BMQC	415	516	Fair
	CFP	434	540	Fair
	Cy2	492	540	Fair
	Di-8-ANEPPS	465	635	Fair
	DiA	456	590	Good
	F2N12S	405	530, 585	Excellent
	FM® 1-43	510	626	Excellent
	LIVE/DEAD® Fixable Yellow	405	575	Good
	Lucifer Yellow	423	543	Excellent
	LysoSensor™ Green	448	503	Fair
	LysoSensor™ Yellow/Blue (pH 8.0)	329	440	Fair
	NBD-X	467	538	Good
	NeuroTrace® 500/525 Nissl stain	497	524	Fair
	Pacific Orange™	440	551	Good
	Qdot® 565	UV	565	Excellent
	SYBR® Gold	495	539	Fair
	SYBR® Green I	497	521	Fair
	SYTO® 9	482	500	Fair
	SYTO® 13	487	505	Fair
	SYTO® 16	490	520	Fair
	SYTO® 45	452	484	Fair
SYTO® RNASelect™	503	527	Fair	
ThiolTracker™ Violet	405	526	Fair	
YOYO®-1	491	509	Fair	

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 585 (586/20 Em)	Alexa Fluor® 430	432	540	Good
	BCECF (pH 5.2)	499	540	Fair
	CellTracker™ Violet BMQC	415	516	Fair
	Di-8-ANEPPS	465	635	Good
	DiA	456	590	Excellent
	F2N12S	405	530, 585	Excellent
	FM® 1-43	510	626	Excellent
	Fura Red (+Ca2+)	436	655	Fair
	LIVE/DEAD® Fixable Yellow	405	575	Good
	Lucifer Yellow	423	543	Good
	NBD-X	467	538	Good
	Nile red (triglyceride)	552	636	Fair
	Pacific Orange™	440	551	Fair
	Qdot® 585	UV	585	Excellent
	SYPRO® Ruby	450	618	Fair
	ThiolTracker™ Violet	405	526	Fair

Click the name of a light cube to view the list of compatible dyes

Commonly used light cubes

DAPI
TagBFP
CFP
GFP
YFP
RFP
Texas Red®
Cy®5
Cy®5.5
Cy®7

Specialty light cubes

CFP-YFP
A0
A0red
Qdot® 525
Qdot® 545
Qdot® 565
Qdot® 585
Qdot® 605
Qdot® 625
Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 605 (605/15 Em)	Alexa Fluor® 430	432	540	Fair
	BCECF (pH 5.2)	499	540	Fair
	Di-8-ANEPPS	465	635	Excellent
	DiA	456	590	Excellent
	F2N12S	405	530 585	Good
	FM® 1-43	510	626	Excellent
	Fura Red (+Ca2+)	436	655	Good
	Fura Red (-Ca2+)	473	670	Fair
	LIVE/DEAD® Fixable Yellow	405	575	Fair
	Lucifer Yellow	423	543	Fair
	NBD-X	467	538	Fair
	Nile red (triglyceride)	552	636	Fair
	Pacific Orange™	440	551	Fair
	Qdot® 605	UV	605	Excellent
	RH 795	530	712	Fair
SYPRO® Ruby	450	618	Good	

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 625 (625/15 Em)	Di-8-ANEPPS	465	635	Excellent
	DiA	456	590	Good
	F2N12S	405	530 585	Fair
	FM® 1-43	510	626	Good
	Fura Red (+Ca2+)	436	655	Excellent
	Fura Red (-Ca2+)	473	670	Good
	Lucifer Yellow	423	543	Fair
	Qdot® 625	UV	625	Excellent
	RH 795	530	712	Fair
	SYPRO® Ruby	450	618	Excellent

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 655 (655/15 Em)	Acridine Orange (+RNA)	460	650	Fair
	Di-8-ANEPPS	465	635	Excellent
	DiA	456	590	Fair
	FM® 1-43	510	626	Fair
	FM® 4-64	558	734	Fair
	Fura Red (+Ca2+)	436	655	Excellent
	Fura Red (-Ca2+)	473	670	Excellent
	Qdot® 655	UV	655	Excellent
	RH 795	530	712	Good
	SYPRO® Ruby	450	618	Excellent

Click the name of a light cube to view the list of compatible dyes

Commonly used light cubes

DAPI
TagBFP
CFP
GFP
YFP
RFP
Texas Red®
Cy®5
Cy®5.5
Cy®7

Specialty light cubes

CFP-YFP
AO
AOred
Qdot® 525
Qdot® 545
Qdot® 565
Qdot® 585
Qdot® 605
Qdot® 625
Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 705 (710/40 Em)	Di-8-ANEPPS	465	635	Good
	FM® 4-64	558	734	Excellent
	Fura Red (+Ca2+)	436	655	Good
	Fura Red (-Ca2+)	473	670	Good
	Qdot® 705	UV	705	Excellent
	RH 795	530	712	Good
	SYPRO® Ruby	450	618	Fair

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 800 (785/62 Em)	FM® 4-64	558	734	Good
	Qdot® 800	UV	800	Excellent

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 525-800	Acridine Orange (+DNA)	500	526	Fair
	Acridine Orange (+RNA)	460	650	Fair
	Alexa Fluor® 430	432	540	Excellent
	Aiexa Fluor® 488	496	518	Fair
	BCECF (pH 5.2)	499	540	Excellent
	BOBO™-1	570	602	Good
	Calcein	494	540	Fair
	Carboxyfluorescein (5-FAM)	492	518	Fair
	CellTracker™ Green CMFDA	490	540	Good
	CellTracker™ Violet BMQC	415	516	Good
	CFP	434	540	Good
	Cy2	492	540	Good
	CyQUANT® Direct	500	540	Fair
	DAF-FM	493	540	Fair
	Di-8-ANEPPS	465	635	Excellent
	DiA	456	590	Excellent
	DiO	484	501	Good
	F2N12S	405	530, 585	Excellent
	FITC	492	520	Fair
	Fluo-4	494	540	Fair
	FM® 1-43	510	626	Excellent
	FM® 4-64	558	734	Excellent
	Fura Red (+Ca2+)	436	655	Excellent
	Fura Red (-Ca2+)	473	670	Excellent
	GFP	488	507	Good
	HCS CellMask™ Green	493	516	Fair
	LIVE/DEAD® Fixable Green	498	506	Fair
	LIVE/DEAD® Fixable Yellow	405	575	Good
	Lucifer Yellow	423	543	Excellent
	LysoSensor™ Green	448	503	Good

Click the name of a light cube to view the list of compatible dyes

Commonly used light cubes

DAPI
TagBFP
CFP
GFP
YFP
RFP
Texas Red®
Cy®5
Cy®5.5
Cy®7

Specialty light cubes

CFP-YFP
A0
A0red
Qdot® 525
Qdot® 545
Qdot® 565
Qdot® 585
Qdot® 605
Qdot® 625
Qdot® 655
Qdot® 705
Qdot® 800
Qdot® 525-800

Light cube	Dye	Abs peak	Em peak	Spectral match
Qdot® 525-800	LysoSensor™ Yellow/Blue (pH 8.0)	329	440	Fair
	LysoTracker® Green	504	511	Fair
	MitoTracker® Green FM	490	512	Good
	NBD-X	467	538	Excellent
	NeuroTrace® 500/525 Nissl stain	497	524	Good
	Nile red (triglyceride)	552	636	Fair
	Oregon Green® 488	498	524	Fair
	Pacific Orange™	440	551	Good
	POPO™-1	434	456	Fair
	PO-PRO™-1	435	455	Fair
	Qdot® 525	UV	525	Excellent
	Qdot® 545	UV	545	Excellent
	Qdot® 565	UV	565	Excellent
	Qdot® 585	UV	585	Excellent
	Qdot® 605	UV	605	Excellent
	Qdot® 625	UV	625	Excellent
	Qdot® 655	UV	655	Excellent
	Qdot® 705	UV	705	Excellent
	Qdot® 800	UV	800	Excellent
	RH 795	530	712	Good
	Rhodamine 110	496	520	Fair
	Rhodamine Green	497	523	Fair
	SYBR® Gold	495	539	Fair
	SYBR® Green I	497	521	Fair
	SYPRO® Ruby	450	618	Excellent
	SYTO® 9	482	500	Good
	SYTO® 13	487	505	Good
	SYTO® 16	490	520	Good
	SYTO® 45	452	484	Good
	SYTO® RNASelect™	503	527	Fair
SYTOX® Blue	444	480	Fair	
ThiolTracker™ Violet	405	526	Good	
YO-PRO®-1	491	507	Fair	
YOYO®-1	491	509	Good	



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