ID7000 Relative Dye Brightness and Marker Assignment Chart

Laser	Slot	Assigned Marker	Fluorochrome	Relative Brightness	Max. Ex/Em λ
355nm	1		BUV395	●●●●	348/395
			SparkPLUS UV-395	●●●●	355/385
			Spark UV-387	●●●	351/387
	2		AF350	●	343/441
			Zombie-UV (avoid)	N/A	355/459
	3		BUV496	●●	350/496
	4		BUV563	●●●	350/564
	5		BUV615	●●●●	350/615
	6		BUV661	●●●●	350/660
	7		BUV737	●●●	350/735
	8		BUV805	●	351/803
405nm	1		BV421	●●●●●	407/423
	2		PacBlue	●	404/455
	3		BV480	●●●	440/479
	4		BV510	●●	405/512
			Zombie-Aqua (3rd)	N/A	380/512
	5		SparkViolet-538	●●	399/538
	6		BV570	●	407/573
			Zombie-Yellow (2nd)	N/A	405/572
	7		BV605	●●●●	407/605
	8		BV650	●●●●	406/649
	9		BV711	●●●	407/713
	10		BV750	●●	409/754
	11		BV785/786	●●	407/785–6
	12		RV828	●	412/828
488nm	1		BB515	●●●●●	490/515
	2		KB520	●●●●●	497/520
			AF488	●●●●	494/517
			FITC	●●●	494/518
	3		RB545	●●●	496/545
			SparkBlue-550	●●	516/540
			AF532	●	534/553
	4		SparkBluePLUS-574	●●●	506/574
			SparkBlue-574	●●	506/574
	5		RB613	●●●●●	492/613
	6		RB670	●●●●	492/670
	7		PerCP	●	481/675
	8		BB700	●●●	476/695
			PerCP-Cy5.5	●●	482/695
	9		RB705	●●●●	498/707
			PerCP-eFluor710	●●●	482/708
	10		RB744	●●●●	498/746
	11		RB780	●●●●	498/781
			PerCP-Fire780	●●	478/780
	12		RB824	●●●	492/824
			PerCP-Fire806	●●	478/806

Laser	Slot	Assigned Marker	Fluorochrome	Relative Brightness	Max. Ex/Em λ
561nm	1		PE	●●●●●	566/576
	2		RY586	●●●●	564/586
			SparkYG-581	●●●	565/581
			SparkYG-593	●●●	574/593
	3		PE-eFluor610	●●●●●	565/606
	4		PE-Dazzle594	●●●●●	566/610
			PE-CF594	●●●●●	566/612
			RY610	●●●●	557/610
			AF594	●●●	590/618
	5		PE-AF610	●●●●●	565/627
	6		PE-Fire640	●●●●	565/639
			RY655	●●●	557/654
	7		PE-Cy5	●●●●●	566/670
	8		PE-Fire700	●●●●	565/695
			RY703	●●●●	557/703
			PE-Cy5.5 (avoid)	●●●	565/695
	9		PE-Fire744	●●●●	565/744
			RY743	●●●●	557/743
	10		PE-Cy7	●●●●	566/781
			PE-Vio770	●●●●	565/775
			RY775	●●●●	557/775
	11		PE-Fire810	●●●	565/806
637nm	1		APC	●●●●	651/660
	2		AF647	●●●●	653/669
	3		RR688	●●●	669/688
			SparkNIR-685	●●	660/685
	4		SparkRed-718	●●●	697/711
			R718	●●●	695/718
			APC-R700	●●●	651/706
			AF700	●●	697/719
	5		Zombie-NIR (1st)	N/A	715/743
	6		APC-Cy7	●●	651/779
			APC-Fire750	●●	650/744
			APC-H7	●●	659/782
	7		APC-Fire810	●●	650/807

Sum=50

Legend: Relative Dye Brightness

Very Bright	●●●●●
Bright	●●●●
Moderate	●●●
Dim	●●
Very Dim	●

The Sony ID7000 spectral analyzer is available in several laser configurations. The most common models feature 4 lasers (405/488/561/637 nm), 5 lasers (355/405/488/561/637 nm), or 6 lasers (320/355/405/488/561/637 nm).

The instrument's spectral unmixing algorithm uses single-color control spectra to deconvolute signals from fully stained samples. Because each dye's emission typically spans multiple detectors and often multiple lasers, unmixing relies on the full spectral fingerprint across all detectors rather than the intensity peak in any single one.

Based on this principle, dyes are broadly grouped into "slots" to prevent combining those with highly similar spectral profiles, with a total of 50 available slots for dye selection. Each dye's relative brightness is indicated, and there is a column for users to assign marker names to each dye. The most common, widely available, and reliable dyes are listed for the 5-laser configuration. For simplicity, only select viability dyes are included, with Zombie-NIR recommended as the preferred option. Dyes known to be problematic or less common are either omitted or marked as unsuitable. For a more comprehensive dye list or guidance on combining additional fluorochromes not shown here, contact your Sony representative.

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The ID7000 Spectral Analyzer is classified as a Class 1 laser product. 11252025