

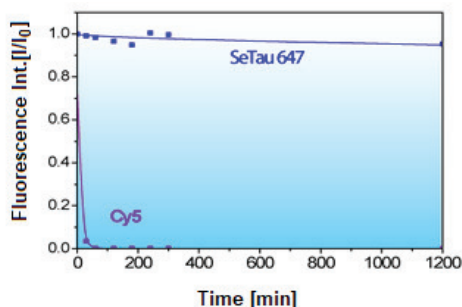
Seta and SeTau Dyes For Microarrays



Our highly bright and photostable SeTau dyes (squaraine rotaxanes) exhibit high chemical stability in particular against **oxidative reagents** such as **peroxides** or **ozone** and therefore are excellent detection reagents for use in DNA and protein microarrays where the fluorescence signals of cyanine dyes such as Cy5 and Alexa 647 are strongly dependent on the concentration of ozone during post-hybridization array washing.

Controlled exposures of microarrays to ozone confirmed the susceptibility of cyanine dyes (Cy5 or Alexa 647) to ozone levels as low as 5-10 ppb for periods as short as 10-30 s.

Below is the confirming data obtained by our Cancer Center customers:



Chemical Stability of SeTau-647 vs. Cy5/Alexa 647 in presence of hydrogen peroxide

Brightness Comparison:

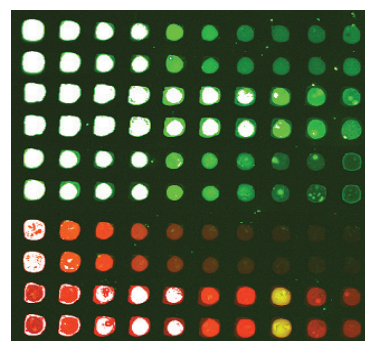
Alexa 555

Seta-555

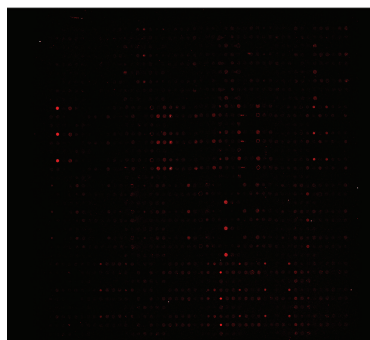
Cy3

Cy5

SeTau-647

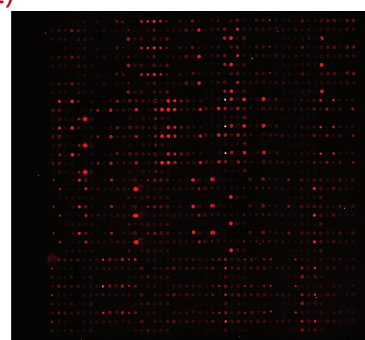


SeTau-647-IgG antibody (right) has up to 35% brighter signal than Alexa-647-IgG antibody (left)



Alexa-647- commercially labeled
Same Ab labeled with SeTau-647
Same plasma sample

Higher PMT setting for Alexa-647
(958) vs SeTau-647 (875)
Same antibody concentration



Dye Selection

Product Number	Product Name	Target Group	Medium	abs (nm)	[M ⁻¹ . cm ⁻¹]	em [nm]	QY [%]	FLT [ns]
K8-3335	Seta-555-NHS	NH ₂	PB 7.4	555	155,000	570	7	-
K9-4142	SeTau-647-di-NHS	NH ₂	PB 7.4	647	200,000	694	65	3.2
K9-4148	SeTau-647-Maleimide	SH	PB 7.4	648	200,000	692	45	3.2
K9-4149	SeTau-647-NHS	NH ₂	PB 7.4	649	200,000	695	61	3.2



SETA BioMedicals
Fluorescent Tools for BioMedical Applications

2014 Silver Ct. East, Urbana, IL 61801 USA
Email: support@setabiomedicals.com
Orders: orders@setabiomedicals.com

For more information please contact us at (217) 417 2160 or visit us at setabiomedicals.com