

Everspark

The long-lasting blinking buffer for dSTORM microscopy



Everspark is a super-resolution microscopy buffer that offers prolonged fluorophore blinking in dSTORM microscopy: mount your sample, and image repeatedly for months!

	Everspark 1.0	Everspark 2.0
Compatible fluorophores	yellow to far-red	green, yellow & far-red
Blinking stability (after mounting)	2 months	3.5 months
Number of blinking events	+	+++

Key features

1. Simplify your imaging workflow by imaging as many times as you want for 2.5 months without replacing the buffer

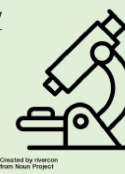
2. Multicolor (including green)
Compatible with green, red & far-red dyes (i.e. AF488, JF549, CF568, JF646, AF647 & Cy5)

3. Ready to use
Use it straight from the vial

4. Up to 6 months performance
Individualized packaging for optimal longevity

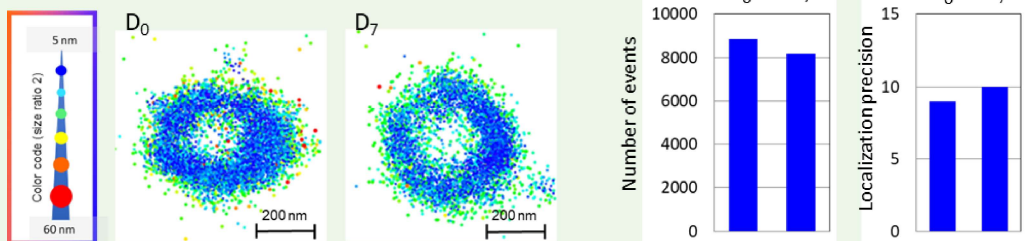
Compatible microscopy techniques:

- PALM
- MINIFLUX
- dSTORM
- HiLo & TIRF modalities



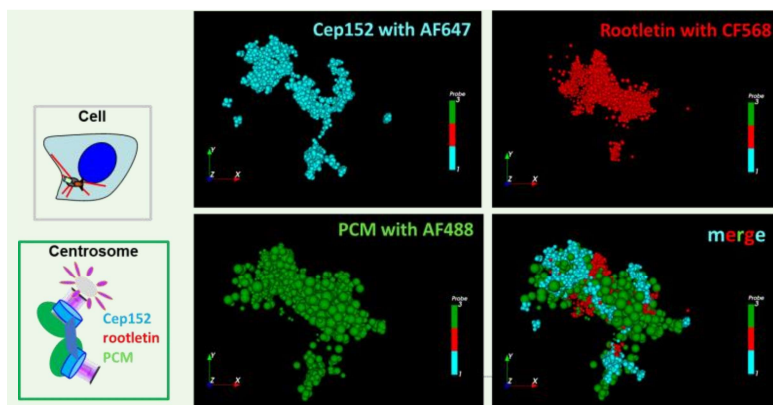
Results

Long-term dSTORM imaging with Everspark



Left: Two centrosomes imaged the same Day (D₀) and 7 days after mounting (D₇) on the same slide stored in the dark at 4°C and visualised using a colour-coded scale encoded with the IGOR software, where each point appears as a function of its localisation precision (5 to 60 nm; inverted rainbow colour scale). Labeling: Distal-appendages detected by immunofluorescence with AF647 in RPE-1 cells. Right: The number of blinking events per centrosome and the median of the localization precision in nm are presented for each serie of 50,000 images recorded at D₀ and D₇.

Credits: Camille Fourneaux, Karine Monier, CRCL, Lyon



Co-localization studies using three-colour 3D dSTORM imaging with Everspark 2.0

Centrosomal proteins Cep152, rootletin and PCM labelled with AF647, CF568 & AF488 respectively were imaged on a Vutara VXL (Bruker) in Everspark 2.0 buffer before 3D dSTORM reconstruction

Credits: Karine Monier, INMG-PGNN, Lyon

Original publication: Provost A. et al, Innovative particle standards and long-lived imaging for 2D and 3D dSTORM. *Sci Rep* 9, 17967 (2019). <https://doi.org/10.1038/s41598-019-53528-0>