





## Leica TCS SP8 STED – Opening the Gate to Super-Resolution

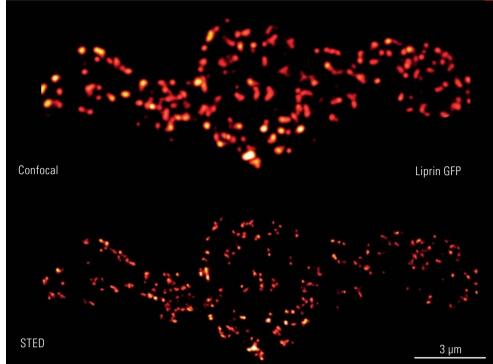
Explore what lies beyond the diffraction barrier with Leica Microsystems' confocal super-resolution system.

The Leica TCS SP8 STED provides fast, intuitive, and purely optical access to structural details far beyond the diffraction limit – even in living specimens.

- > Resolve details smaller than 50 nm quickly and directly
- Discover what's inside with the only confocal super-resolution system
- > Watch dynamics in living cells at the nanoscale!
- > Freedom to choose use popular fluorescent dyes and proteins
- Perform colocalization studies with dual color STED imaging
- > Profit form sharper images at lower laser power with gated STED
- > Allow your Leica TCS SP8 to grow upgrade to STED







Liprin GFP in drosophila larvae. Sample courtesy of Stephan Sigrist, Freie Universität Berlin, Germany.

## LEICA TCS SP8 STED - THE FAST TRACK TO SUPER-RESOLUTION

STED microscopy does not rely on mathematics. What you see is what you get. Of course, results can be improved further by deconvolution. Just one click instantly switches from confocal to super-resolution, even during a live scan. Within seconds, imaging parameters can be optimized and super-resolved images obtained.

STED microscopy works with standard fluorophores such as Alexa 488, Oregon Green 488 and FITC. It does not rely on oxygen depletion or reducing agents in the embedding medium. Citrin, eYFP and eGFP will also give you convincing results. This allows you to stay as close as possible to routine protocols, saving you both time and money.

Multi-color STED imaging empowers colocalization studies at the nanoscale without the need to compensate for chromatic aberrations, as the same STED doughnut is used for all colors.

STED microscopy minimizes the effect of sample drift and combines intrinsic optical sectioning capability and fast image acquisition. The suitability of fluorescent proteins further qualifies STED imaging to reveal fast dynamic processes inside living cells or even organisms — with unmatched precision.

STED, the Leica HYD™ detectors and the White Light Laser are perfect partners in our innovative gated STED option.

Resolution and contrast are increased, whilst laser power is decreased. This enhances photo-stability and means a major step forward in super-resolution for live cell imaging.

Discover more with the Leica TCS SP8 STED!

## LASER RADIATION VISIBLE AND INVISIBLE - CLASS 3B AVOID DIRECT EXPOSURE TO BEAM < 500mW 350-700nm IEC 60825-1: 2007

## LASER RADIATION VISIBLE AND INVISIBLE - CLASS 4 AVOID EVE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION P< 4W 350-1600nm >80fs IEC 60825-1: 2007