Supplementary Material

WST11 Vascular Targeted Photodynamic Therapy Effect Monitoring by Multispectral Optoacoustic Tomography (MSOT) in Mice

Authors

Volker Neuschmelting ^{a,b}, Kwanghee Kim ^c, Jaber Malekzadeh-Najafabadi ^d, Sylvia Jebiwott ^c, Jaya Prakash ^d, Avigdor Scherz ^e, Jonathan A. Coleman ^c, Moritz F. Kircher ^{a,f,g,h*} and Vasilis Ntziachristos ^{d,i*}

Affiliations

- a Department of Radiology, Memorial Sloan Kettering Cancer Center, New York, USA
- b Department of Neurosurgery, University Hospital Cologne, Cologne, Germany
- c Department of Surgery, Memorial Sloan Kettering Cancer Center, New York, USA
- d Institute for Biological and Medical Imaging, Helmholtz Zentrum, Munich, Germany
- e Department of Plant and Environmental Sciences, Weizmann Institute of Science, Rehovot, Israel
- f Center for Molecular Imaging and Nanotechnology (CMINT), Memorial Sloan Kettering Cancer Center, New York, USA
- g Department of Radiology, Weill Cornell Medical College, New York, USA
- h Molecular Pharmacology Program, Memorial Sloan Kettering Cancer Center, New York, USA
- i Chair for Biological Imaging, Technische Universität München, Munich, Germany

*Correspondence to: Moritz F. Kircher (kircherm@mskcc.org) or Vasilis Ntziachristos (v.ntziachristos@helmholtz-muenchen.de)

Supplementary Figures



Figure S1. Absorbance spectrum of 50 μ M WST11 in PBS with its absorption peak at 753 nm used for VTP. The wavelength bandwidth from 700 to 800 nm can be efficiently used for the multispectral photoactivation in the theranostic MSOT approach (grey shaded area).



Figure S2. Laser power across wavelengths adjusted by the pockels cell delay used for multispectral pulsed laser illumination.



Figure S3. Enlarged histological images derived from Figure 1. Panel A. WST11-VTP. **Panel B.** Sham-treated mouse as control.



Figure S4. Enlarged histological images derived from Figure 3. Panel A. WST11-VTP. **Panel B.** Sham-treated mouse as control.