Case Study 2 Tumor Oncology

Monitoring Tumor Development in a Mammary Fat Pad Model Using Implanted 4T1 Tumor Cells

With MMPSense you can monitor tumor development over time. Figure 4 shows control untreated mammary fat pad tumors (control), animals treated with n-acetylcysteine and an MMP inhibitor (NAC + pan-MMPI) and a group treated with chemotherapeutic agent Doxycyline. The tumors were visualized using MMPSense 750 FAST at 12 hours after probe administration by epifluorescence imaging. Multiple time points of tumor progression or anti-chemotherapeutic treatment are possible using these reagents.

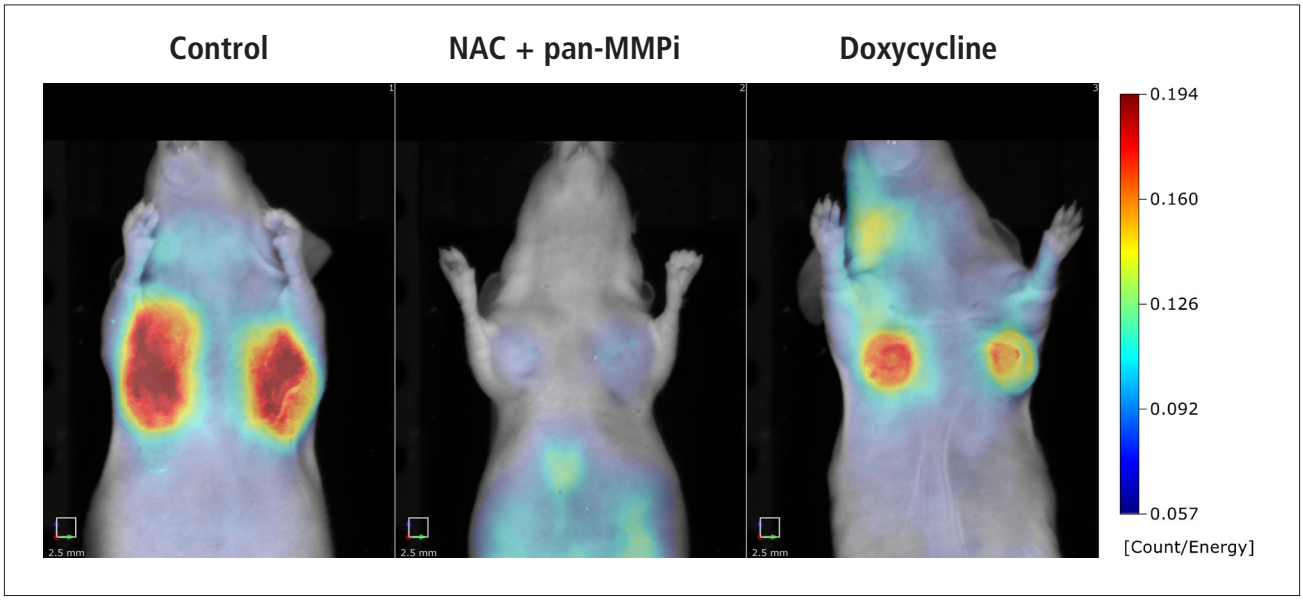

Figure 4. Tumor development and monitoring of implanted Bioware® Brite 4T1-Red-Fluc oncology cells injected in mouse mammary fat pad model. Visualized using MMPSense 750 FAST fluorescent probe and FMT 4000 imaging system.

Use MMPSense as Part of a Complete Experimental Solution Package

PerkinElmer provides complete *in vivo* imaging solutions including reagents, instrumentation and support expertise that can help you monitor and design experiments to understand the progression of diseases and their related processes, or to evaluate the potential therapeutic efficacy of drugs targeting the underlying mechanisms involved in disease.

MMPSense is available in three wavelengths, 645, 680, and 750 nm. MMPSense FAST (Fluorescent Activatable Sensor Technology), has an improved pharmacokinetic profile with earlier time points offering higher target specific signal with reduced background while also reducing the optimal imaging time after injection.

Cat #	Product
Nev10100	MMPSense 645 FAST
Nev10126	MMPSense 680
Nev10168	MMPSense 750 FAST

*Patent 9574085 - Biocompatible N, N-disubstituted sulfonamide-containing fluorescent dye labels.

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