

## **Comparative suitability of CFDA-SE and rhodamine 6G for in vivo assessment of leukocyte-endothelium interactions.**

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### **Abstract**

Intravital fluorescence microscopy (IVM) is a predestined tool for investigating the fate of leukocytes during the process of leukocyte recruitment. In the present study, the commonly used dye for this purpose, rhodamine 6G, and carboxyfluorescein diacetate succinimidyl ester (CFDA-SE) were compared for leukocytes labelling with respect to suitability for IVM studies. Their potential in labelling different leukocytes subpopulations as well as their fluorescence intensities were assessed by flow cytometry revealing distinct differences between both dyes. These differences had a profound impact on their application for in vivo imaging of leukocyte-endothelium interactions. In summary, CFDA-SE revealed superior in labelling leukocytes for in vivo microscopy with respect to image quality. In addition, we could show the efficiency of CFDA-SE also under disease condition in an animal model of sepsis.

### **Identifier**

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