**Title:** PKCα diffusion and translocation are independent of an intact cytoskeleton

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**One Sentence Summary:** Employing pharmacological and optical tools, we quantitatively demonstrate that the subcellular dynamicity of PKCα is driven by sole diffusion and independent of the integrity of the cytoskeleton.

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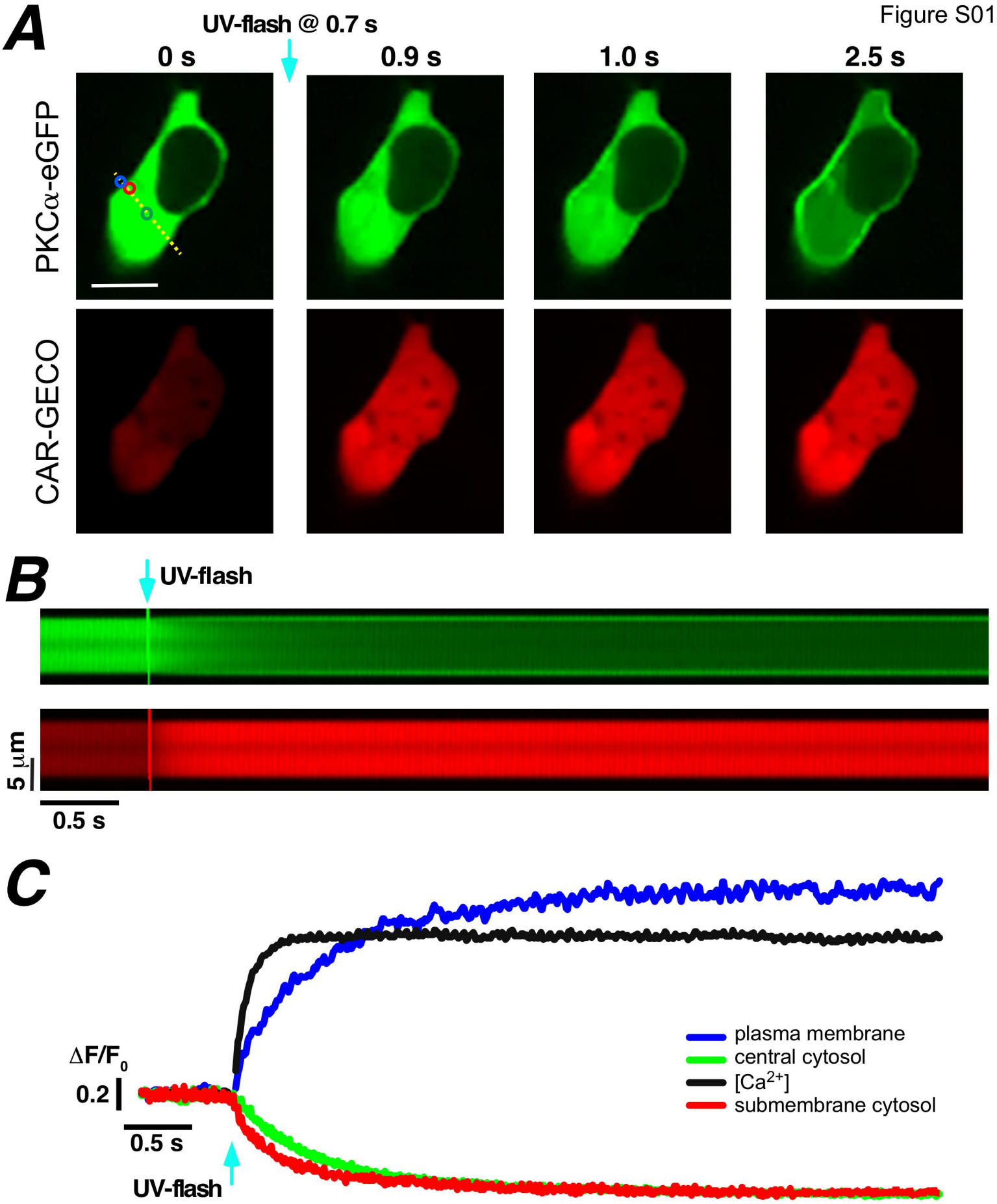
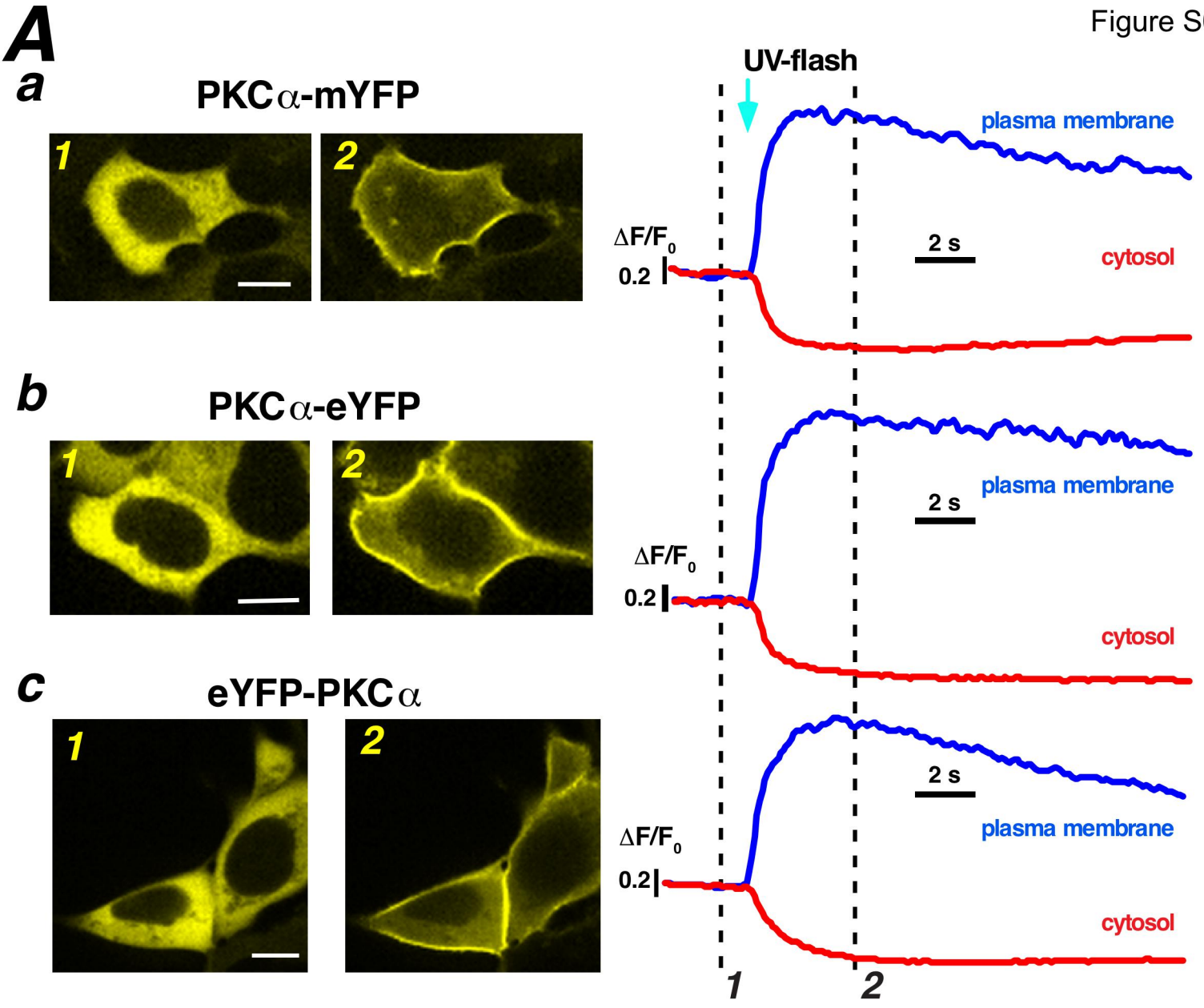



**Figure S01.** UV-flash evoked NP-EGTA uncaging results in a substantially faster Ca increase than Ca-dependent translocation of PKCα-eGFP. NP-EGTA-AM loaded HEK cells expressing PKCα-eGFP and the red-shifted genetically encoded Ca sensor CAR-GECO were subjected to a birght UV-flash at the time indicated by the turkis arrow. (A) upper row redistribution of PKCα-eGFP and lower row fluorescence changes of the CAR-GECO for the time points given. Scale bar depicts 10 µm. (B) Psudeo-linescan along the yellow dahsed line in (A) shows the redistribution of PKCα-eGFP and the fluorescence change of CAR-GECO. (C) fluorescence over time traces for the subcellular locations given. The flash artefact was removed for display reasons. Similar results were obtained from additional 15 cells from 3 independent experiments.



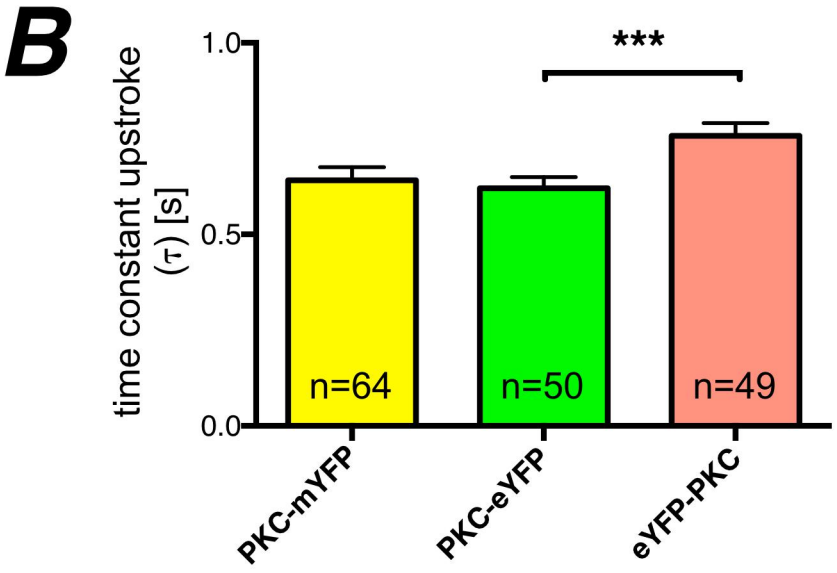




**Figure S02.** UV-flash evoked redestribution of PKCα-mYFP (Aa, B-yellow bar), PKCα-eYFP (Ab, B-green bar) and eYFP-PKCα (Ac, B-red bar). In (A) left panels depict exemplified confocal sections at the time points highlighted in the fluorescence over time traces in the right panels.