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Supplementary Material

Single-Molecule Imaging of a Fluorescent Unnatural Amino Acid Incorporated into Nicotinic Receptors

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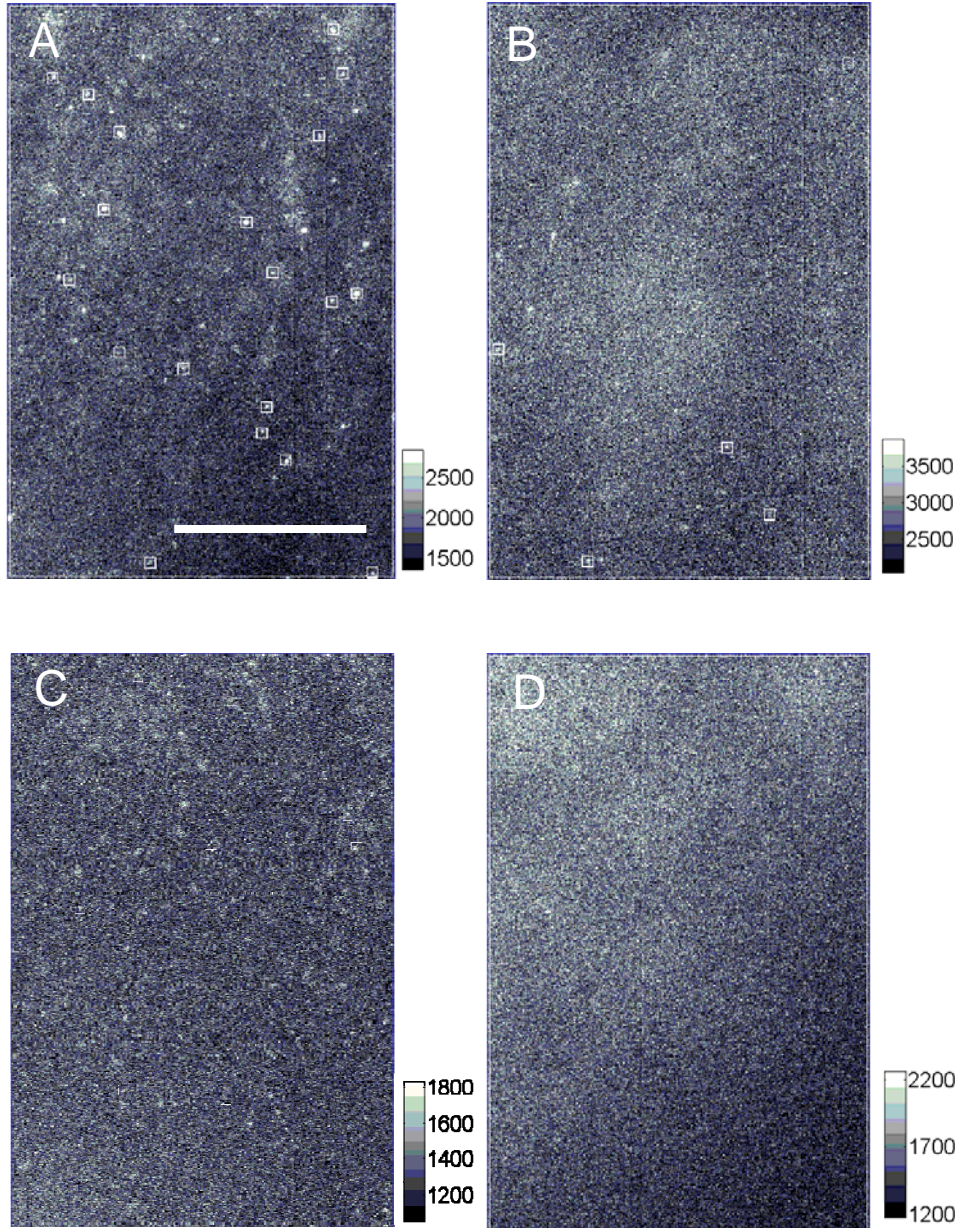


Figure 1. TIRF microscopy images from oocytes expressing fluorescent nAChRs and control oocytes. The rectangles denote puncta which satisfied the point spread function of our microscope and were analyzed for photobleaching events. The images are false colored. The intensity counts calibration bar displays a linear range with 1% of the outlier counts excluded for optimal visualization purposes. The scale bar applies to all images and represents 6 μm .

- (A) An oocyte expressing nAChR $\beta 19'$ Lys(BODIPYFL).
- (B) A control oocyte injected with YFaFS_{ACCC}-Lys(BODIPYFL).
- (C) An oocyte expressing nAChR γ_{eGFP} .
- (D) An unlabeled and uninjected oocyte.

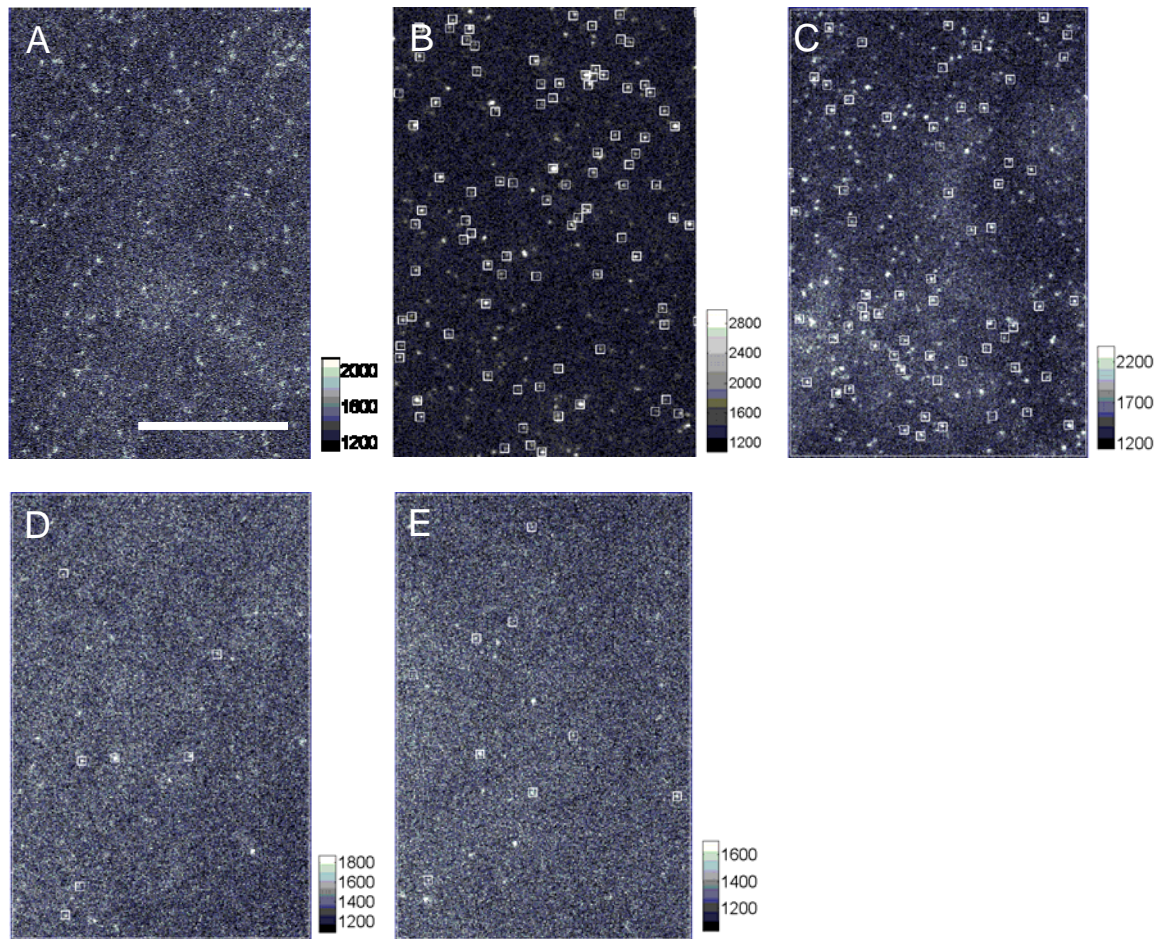


Figure 2. TIRF microscopy images from oocytes incubated with α BtxAlexa488. The rectangles denote puncta which satisfied the point spread function of our microscope and were analyzed for photobleaching events. The images are false colored. The intensity counts calibration bar displays a linear range with 1% of the outlier counts excluded for optimal visualization purposes. The scale bar applies to all images and represents 6 μ m.

(A) An oocyte expressing WT nAChRs.
 (B) An oocyte expressing nAChR γ_{GFP} .
 (C) An oocyte expressing nAChR $\beta 19^{\text{Lys}}$ (BODIPYFL).
 (D) A control oocyte injected with YFaFS_{ACCC}-Lys(BODIPYFL).
 (E) An uninjected oocyte.