## Supplementary fig 3

## a

Total METxMET-VC-biosensor (24 hours) Processed METxMET-VC-biosensor



## Total METxMET-VC-biosensor Processed METxMET-VC-biosensor

b



С



Total METxMET-VC-biosensor Processed METxMET-VC-biosensor



Supplementary Fig 3. Processed METxMET-VC-biosensor colocalizes with late endosome/lysosomes and recycling endosomes *in vivo*.

(a) Confocal microscopy scan shows good penetration and substantial processing of METxMET-VC-biosensor in EBC1 xenografts 24 hours post-injection. (b) 3D rendered confocal images show that intact (red) and processed (green) METxMET-VC-biosensor localizes to intracellular vesicles and the periphery of the cell in EBC1 xenografts 24 hours after injection. (c) Representative image of two cells suggesting that intact METxMET-VC-biosensor might (1) bind to the plasma membrane, (2) be internalized, (3) rapidly processed, (4) transferred to recycling vesicles and (5) recycled to the plasma membrane in EBC1 xenografts. (d) Processed METxMET-VCbiosensor (orange) partially colocalizes with immunofluorescent staining of the late endosome/lysosome marker Lamp1 (blue) and the recycling endosome marker Rab11a (green) in immunofluorescence staining of EBC1 xenografts, 24 hours after injection.