



Figure S3. Reduced FRET efficiency between ER α and histone acetylation marker after 80 μ M anacardic acid treatment for 24h. (A) Typical donor channel FLIM images

of MCF7 cells treated with and without anacardic acid. Only fluorescence lifetime information was shown. Typical single cell lifetime histogram (B) without and (C) with anacardic acid treatment. Fluorescence lifetime histogram of ER α -ALEXA488 only (red); co-immunostaining of ER α -ALEXA488 and H4K12ac-ALEXA546 (blue) are shown parallel for comparison. A binning of 7, and 100 counts as threshold for background was applied for analysis. (D) TCSPC graph of typical single cell lifetime decay with ER α -H4K12ac interaction used for analysis. (E) FRET efficiency reduces non-specific level after anacardic acid exposure between ER α and H4K12ac/H3K27ac. n~20 cells. Scale bar=5 μ m.