



**Supplemental Figure 1. DACT causes dose-dependent inhibition of GnRH-induced intracellular calcium transients in pituitary gonadotrophs.** LβT2 cells were exposed to 0, 100, 200, or 300 μM DACT for 24 hrs and evaluated for GnRH-induced changes in intracellular Ca<sup>2+</sup> by fluorescence microscopy. Pseudo-colored images of relative Ca<sup>2+</sup> changes in control (a,b) and DACT-treated (c,d) cells at rest (a,c) and after stimulation with 100 nM GnRH (b,d). A dose-dependent decrease in GnRH-induced Ca<sup>2+</sup> transients is observed in LβT2 cells exposed to DACT (e), corresponding to decreased peak amplitude (f). Representative images are depicted in a-d. Data in e,f are the means of 3 individual experiments (*n*=400 – 600 cells total). \**P*<0.001. Scale bar = 50 μm

**Methods:** LβT2 cells were plated onto multi-well chambered coverglass slides (Nunc) and exposed to 0, 100, 200, or 300 μM DACT for 24 hrs. Following treatment, cells were loaded with 4 μM Fluo-4 acetoxyethylmethyl ester (Molecular Probes, Eugene, OR) for 20 min at 37 °C and placed for microscopy into Earle's balanced salt solution containing 1.35 mM CaCl<sub>2</sub>. Images were acquired every 10 sec for 10 min, with 100 nM GnRH was added after 1 min. Images of Fluo-4 fluorescence were collected at 490 nm excitation/515 nm emission through a 20X NeoFluor air objective using a Zeiss 200M inverted microscope equipped with a DG-4 xenon excitation source (Sutter Instruments, Novato, CA) and ORCA-ER cooled interline charge-coupled device camera (Hamamatsu Photonics, Hamamatsu City, Japan). Data were analyzed as the mean background-subtracted fluorescence intensity of each cell normalized to the intensity of the first image (*F*/*F*<sub>0</sub>). Both data acquisition and analysis were performed using Slidebook software (v5.0, Intelligent Imaging Innovations, Denver, CO).