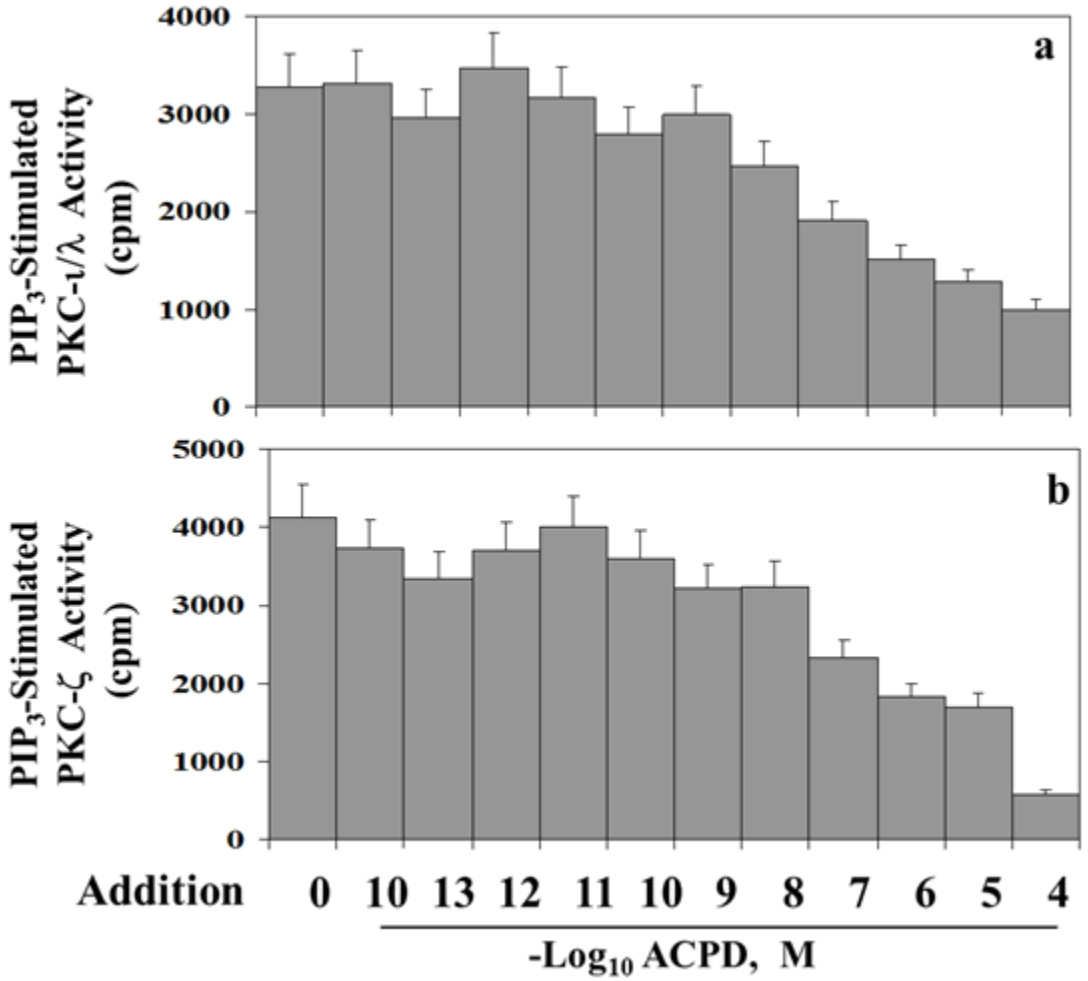
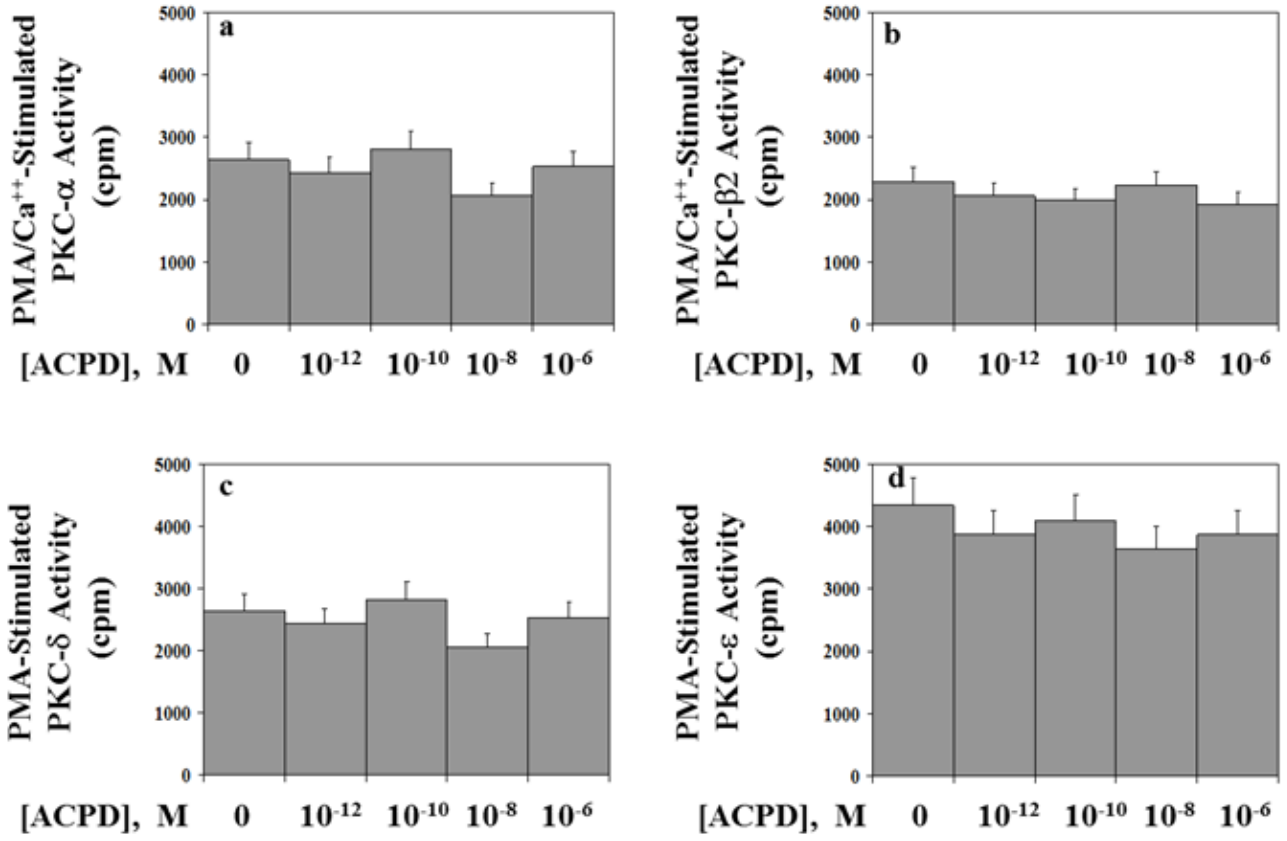
SUPPLEMENTARY DATA

Supplementary Figure 1. Dose-related effects of ACPD on PIP3-stimulated activities of PKC-ι./λ (panel a) and PKC-ζ (panel b). As described (2,16), for assays of recombinant PKC-ι and PKC-ζ (5-10ng/assay; Biovision, Mountain, California, USA), 10fmM phosphatidylinositol-3,4,5-(PO4)3 (PIP3)(Matreya, Pleasant Gap, Pennsylvania, USA) was added to maximally activate and clearly define aPKC activity, and assays were conductred with indicated concentrations of ACPD and other components of the aPKC assay system. Values are Mean ± SEM of 4 determinations. Comparable data for ICAP are given in refs 2 and 16.



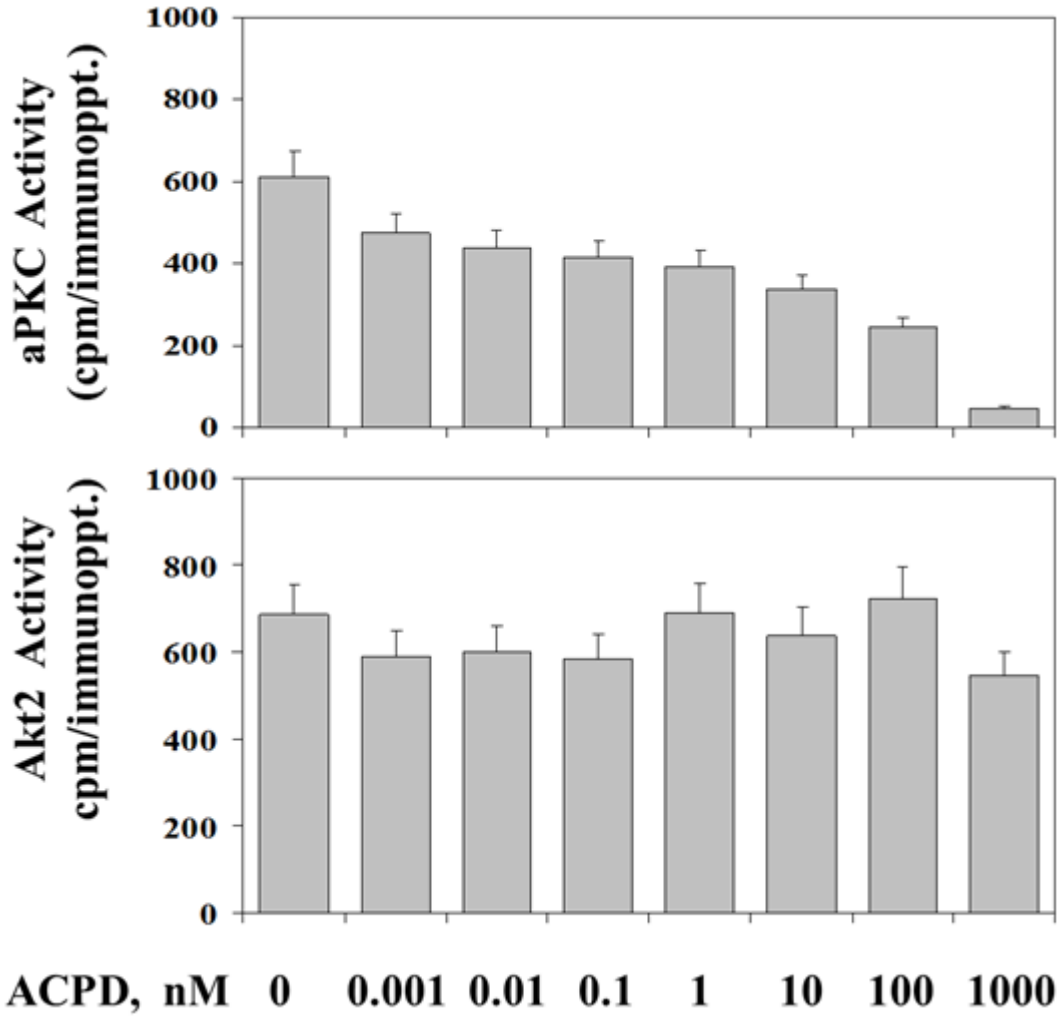
SUPPLEMENTARY DATA

Supplementary Figure 2. Dose-related effects of ACPD on phorbol myristoyl acetate(PMA)-stimulated ± CaCl2-stimulated activities of PKC-α, PKC-β2, PKC-δ, and PKC-β2. As described (2,16), recombinant forms of PKC-α, PKC- β2, PKC-δ and PKC-ε (gifts from Sphinx Division, Lilly Corp., Indianapolis, Indiana, USA) were assayed in the presence of 1mM CaCl2 and 100nM phorbol myristoyl acetate (PMA) for PKC-α and PKC-β2, and in the presence of 100nM PMA for PKC-δ and PKC-ε to activate and define respective PKC activities, along with indicated concentrations of ACPD, and other components of the PKC assay system, , as described (2). Values are Mean ± SEM of 4 determinations. Comparable data for ICAP specificity are given in refs 2 and 16.



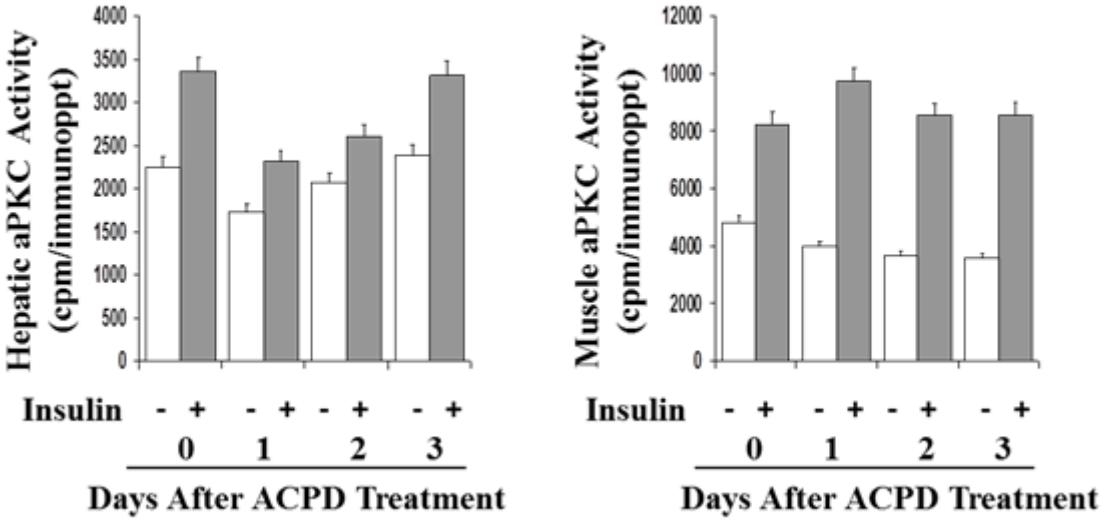
SUPPLEMENTARY DATA

Supplementary Figure 3. Dose-related effects of ACPD on basal and insulin-stimulated activities of aPKC and Akt2 in isolated human hepatocytes. Hepatocytes were obtained and cultured as described in references 2,and 16, and then incubated for 30 min with indicated concentrations of ACPD, and then for another 15 min 15 min with 100nM insulin. After incubation, lysates were obtained and subjected to immunoprecipitation and subsequent assay for aPKC and Akt2 activities. Values are mean ± SEM of 4 determinations.



SUPPLEMENTARY DATA

Supplementary Figure 4. Effects of ACPD on resting/basal and insulin-stimulated aPKC activity in liver and muscle. Mice consuming standard low-fat mouse chow were injected subcutaneously with a single injection of ACPD (10mg/kg body weight). On successive days, mice were treated ± insulin (1U/kg body weight) intraperitoneally 15 min prior to killing, and liver and muscle tissues were taken and examined for immunoprecipitable aPKC activity as described in Methods. Values are Mean ± SEM of 4 determinations.



SUPPLEMENTARY DATA

Supplementary Figure 5. Activation of insulin receptor substrate (IRS)-1- and IRS-2-dependent phosphatidylinositol 3- kinase (PI3K) in liver and muscle of high-fat-fed and low-fat-fed mice. Values are mean ± SEM of the number of determinations shown in parentheses. Asterisk indicates: *, P<0.05; **, and P<0.01 for comparison of insulin-stimulated value versus adjacent control value.