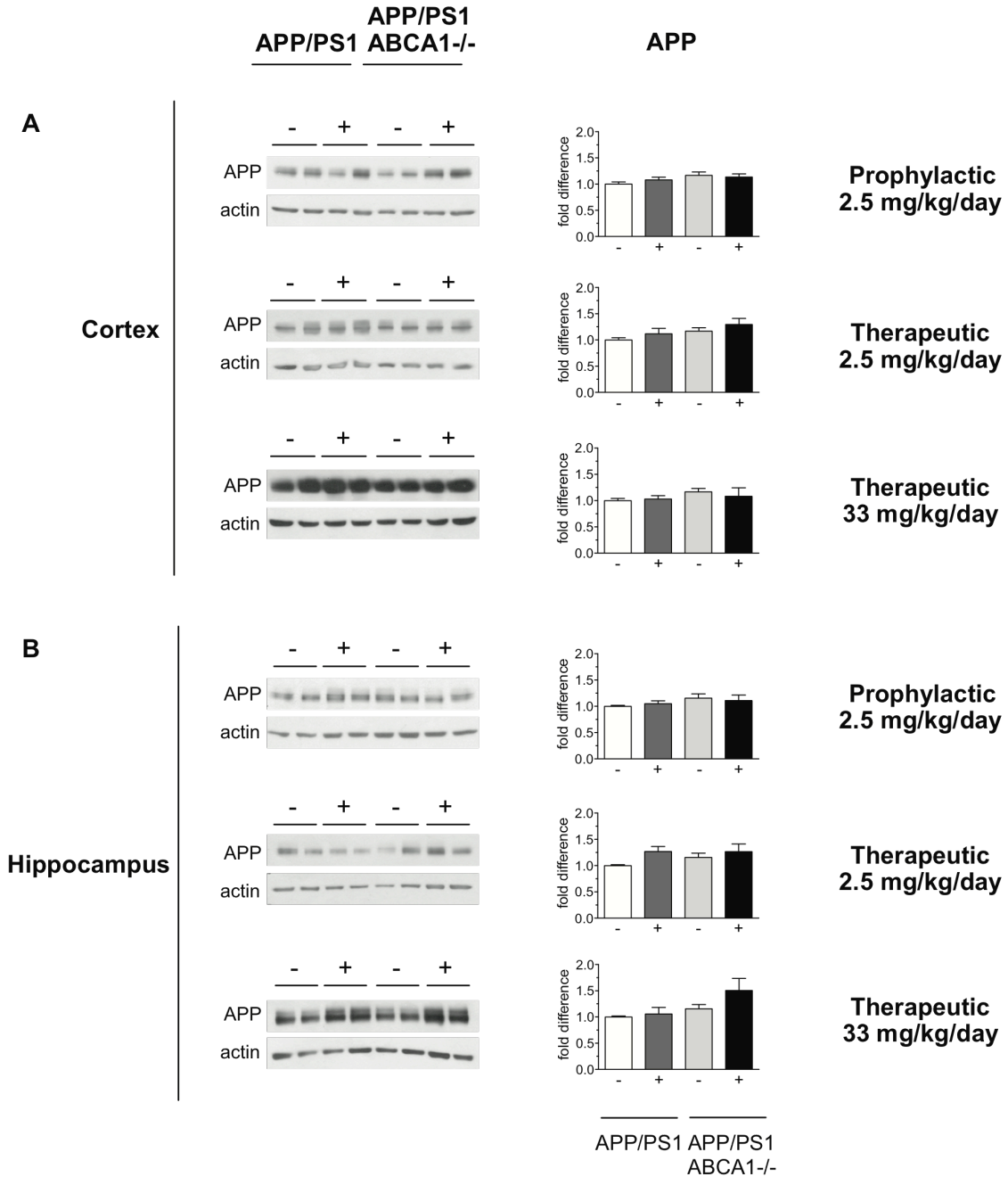
Supplemental Fig. 1. High dose GW3965 significantly increases ABCA1 levels in cortex and hippocampus. In order to quantify band density, high dose treated samples were diluted either 3-fold (cortex) or 2-fold (hippocampus) and compared to undiluted controls. Panels are representative blots from individual mice from the following cohorts: APP/PS1 untreated control: N=7 (cortex), N=7 (hippocampus); APP/PS1 high dose therapeutic: N=10 (cortex), N=9 (hippocampus).

Supplemental Fig. 2. APP levels are unchanged in ABCA1-deficient or GW3965-treated mice. APP protein levels were analyzed in undiluted carbonate extracts of hippocampus and cortex. Representative Western blots are shown on the left. Values represent mean ± SEM of APP levels from at least three independent experiments. Cohorts consisted of the following Ns: APP/PS1 untreated control: N=7 (cortex), N=8 (hippocampus); APP/PS1 prophylactic: N=8 (cortex) N=8 (hippocampus); APP/PS1 low dose therapeutic: N=8 (cortex), N=8 (hippocampus); APP/PS1 high dose therapeutic: N=10 (cortex), N=10 (hippocampus); ABCA1-/- APP/PS1 untreated control: N=4 (cortex), N=4 (hippocampus); ABCA1-/- APP/PS1 prophylactic: N=8 (cortex) N=8 (hippocampus): ABCA1-/- APP/PS1 low dose therapeutic: N=8 (cortex), N=7 (hippocampus); ABCA1-/- APP/PS1 high dose therapeutic: N=4 (cortex), N=4 (hippocampus).

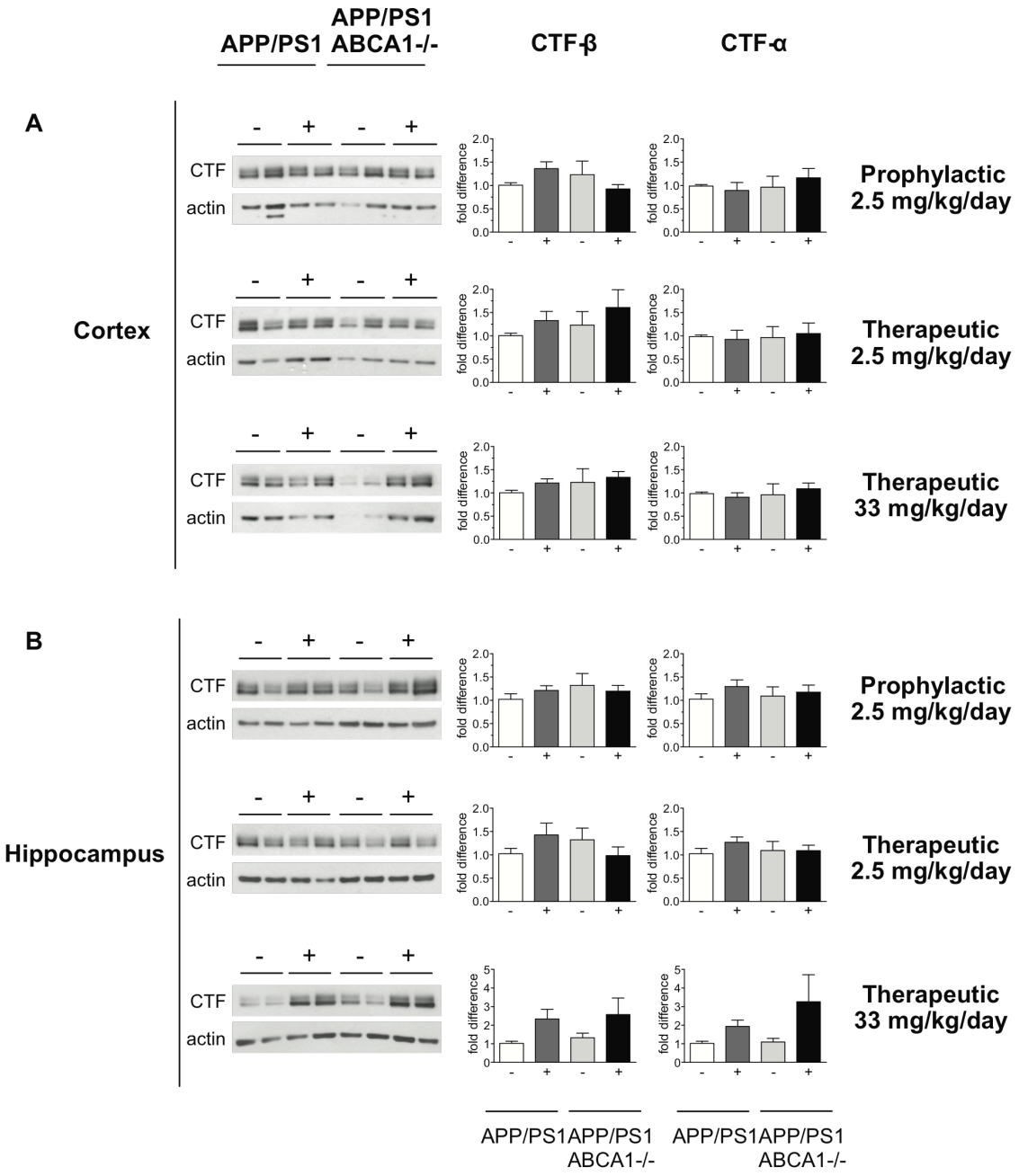
Supplemental Fig. 3. CTF levels are unchanged in ABCA1-deficient or GW3965-treated mice. CTF protein levels were analyzed in undiluted carbonate extracts of hippocampus and cortex. Representative Western blots are shown on the left. Values represent mean ± SEM of CTFα and CTFβ levels. Cohorts consisted of the following Ns: APP/PS1 untreated control: N=7 (cortex), N=8 (hippocampus); APP/PS1 prophylactic: N=8 (cortex) N=8 (hippocampus); APP/PS1 low dose therapeutic: N=7 (cortex), N=8 (hippocampus); APP/PS1 high dose therapeutic: N=10 (cortex), N=10 (hippocampus); ABCA1-/- APP/PS1 untreated control: N=3 (cortex), N=4 (hippocampus); ABCA1-/- APP/PS1 prophylactic: N=8 (cortex) N=8 (hippocampus): ABCA1-/- APP/PS1 low dose therapeutic: N=6 (cortex), N=7 (hippocampus); ABCA1-/- APP/PS1 high dose therapeutic: N=4 (cortex), N=4 (hippocampus).

Supplemental Fig. 4. Effect of GW3965 and ABCA1 on the proportion of oligomeric:total Aβ. Nitrocellulose membranes were spotted with cortical carbonate extracts in duplicate and immunoblotted with A11 and 6E10 antibodies. Data represent mean ± SEM of oligomeric, total, and oligomeric:total Aβ levels. Cohorts consisted of the following Ns: APP/PS1 untreated control: N=7 (cortex), N=8 (hippocampus); APP/PS1 prophylactic: N=8 (cortex) N=8 (hippocampus); APP/PS1 low dose therapeutic: N=8 (cortex), N=8 (hippocampus); APP/PS1 high dose therapeutic: N=7 (cortex), N=8 (hippocampus); ABCA1-/- APP/PS1 untreated control: N=7 (cortex), N=7 (hippocampus); ABCA1-/- APP/PS1 prophylactic: N=8 (cortex) N=8 (hippocampus): ABCA1-/- APP/PS1 low dose therapeutic: N=8 (cortex), N=8 (hippocampus); ABCA1-/- APP/PS1 high dose therapeutic: N=4 (cortex), N=4 (hippocampus).

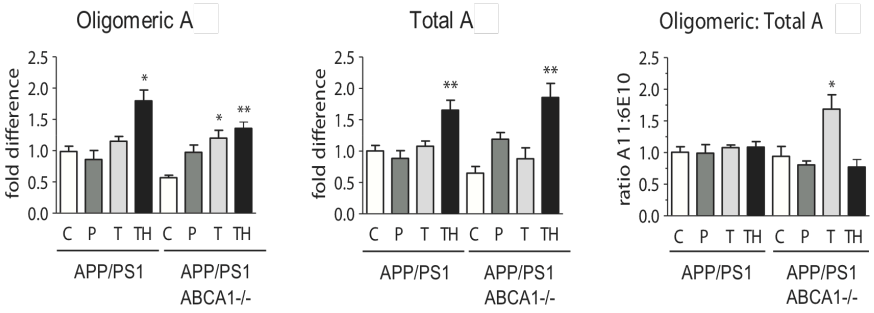
Supplemental Figure 1



Supplemental Figure 2



Supplemental Figure 3



Supplemental Figure 4