

Fig. S1 Effects of PG01037 on basal locomotor activity in the 30-min period prior to morphine administration. **A** Male or **B** female mice were pretreated with vehicle or 0.1 - 10 mg/kg PG01037, followed 30 min later by vehicle or 5.6 - 56 mg/kg morphine. Shown are mean ± SEM total ambulations in the 30-min period following PG01037 administration, prior to morphine injection. Because mice were administered each dose of PG01037 on three separate occasions (i.e. prior to three different doses of morphine), ambulations were averaged across the three administrations for each dose of PG01037 for each subject. All mice received all treatments (n = 8/sex). Doses on the abscissa are plotted along a log scale.



Fig. S2 Basal locomotor activity is not altered by PG01037 in a 150-min duration following its administration in **A**, **B** male or **C**, **D** female mice. PG01037 (vehicle, 10 mg/kg) was administered 30 min prior to saline (i.e., vehicle of morphine) and locomotor activity was measured for 120 min after saline injection. Time course displays mean ± SEM ambulations recorded in 5-min bins in **A** male or **C** female mice. Arrows indicate time of pretreatment and saline injections. Total ambulations in the 120-min period following saline injection are shown for **B** male or **D** female mice, where gray bars represent mean ± SEM total ambulations. Values

from individual subjects are shown as superimposed scatterplots. All mice received both treatments (n = 8/sex). "Veh" = vehicle; "PG" = PG01037; "Morph" = morphine.