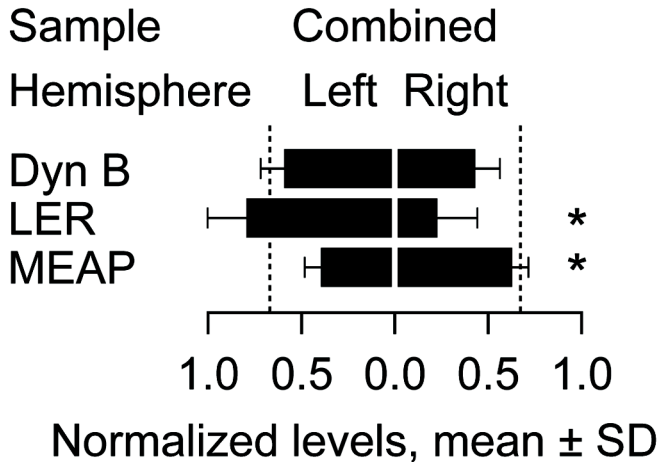
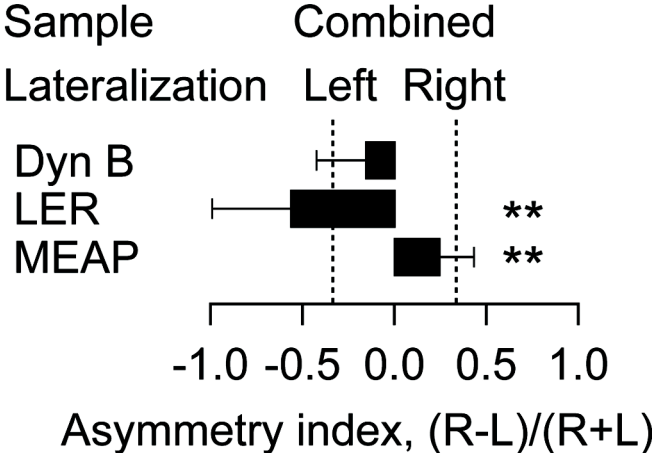


Supplementary Figure 1a



Comparison of the opioid peptide levels between the left and the right pgACC in the replication sample ($N=12$ including 9 male and 3 female subjects). Data are shown as mean ± SD of the normalized levels in the LH [$L/(L+R)$] and RH [$R/(L+R)$], where L and R is level in the LH and RH, respectively. Dashed lines at a 0.66 value mark 2-fold differences between the hemispheres. Significance levels in ANOVAs: lateralization effects, $*p \leq 0.05$.

Supplementary Figure 1b



The asymmetry index (AI) of the opioid peptides in the pgACC. The AI $[(R-L)/(R+L)]$ is a measure of hemispheric differences which the -1.0 and +1.0 values indicate a complete left or right lateralization, respectively, and the 0.0 value symmetric distribution. Data bars represent means \pm SD. Dashed lines at the -0.33 and +0.33 AI values mark 2-fold differences between hemispheres. Significance in the MANOVA for lateralization effect: $**p < 0.01$.